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**Department of Defense
Fiscal Year (FY) 2019 Budget Estimates**

February 2018



Air Force

Justification Book Volume 1 of 1

Procurement of Ammunition, Air Force

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Air Force • Budget Estimates FY 2019 • Procurement

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**Appropriation Language
Fiscal Year (FY) 2019 Budget Estimates
Procurement of Ammunition, Air Force**

For construction, procurement, production, and modification of ammunition and accessories therefor; specialized equipment and training devices; expansion of public and private plants, including ammunition facilities authorized by section 2854 of title 10, United States Code, and the land necessary therefor, for the foregoing purposes, and such lands and interests therein, for the foregoing purposes, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway; other expenses necessary for the foregoing purposes, and overseas contingency operations, \$3,008,820,000 to remain available for obligation until September 30, 2021.

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Department of the Air Force
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation: Procurement of Ammunition, Air Force

Budget Activity -----	FY 2017 (Base + OCO) -----	FY 2018 PB Request with CR Adj Base -----	FY 2018 Total PB Requests* with CR Adj Base -----	FY 2018 PB Request with CR Adj OCO -----
01. Ammunition	2,097,688	1,347,991	1,347,991	501,509
02. Weapons	37,459	28,611	28,611	
20. Undistributed		201,825	201,825	43,399
Total Procurement of Ammunition, Air Force	2,135,147	1,578,427	1,578,427	544,908

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P-119PB: FY 2019 President's Budget (Published Version), as of February 1, 2018 at 12:17:25

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Department of the Air Force
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Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation: Procurement of Ammunition, Air Force

Budget Activity -----	FY 2018 Total PB Requests+ with CR Adj OCO -----	FY 2018 Emergency Requests** Emergency -----	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs -----	FY 2018 Remaining Req Emergency -----
01. Ammunition	501,509			
02. Weapons				
20. Undistributed	43,399			
Total Procurement of Ammunition, Air Force	544,908			

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Department of the Air Force
FY 2019 President's Budget
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(Dollars in Thousands)

01 Feb 2018

Appropriation: Procurement of Ammunition, Air Force

Budget Activity -----	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency** -----	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs -----	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency -----
01. Ammunition	1,849,500		1,849,500
02. Weapons	28,611		28,611
20. Undistributed	245,224		245,224
Total Procurement of Ammunition, Air Force	2,123,335		2,123,335

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Total Obligational Authority
(Dollars in Thousands)

01 Feb 2018

Appropriation: Procurement of Ammunition, Air Force

Budget Activity -----	FY 2019 Base -----	FY 2019 OCO -----	FY 2019 Total -----
01. Ammunition	1,522,802	1,413,016	2,935,818
02. Weapons	64,502	8,500	73,002
20. Undistributed			
Total Procurement of Ammunition, Air Force	1,587,304	1,421,516	3,008,820

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Department of the Air Force
 FY 2019 President's Budget
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 Total Obligational Authority
 (Dollars in Thousands)

01 Feb 2018

Appropriation: 3011F Procurement of Ammunition, Air Force

Line No	Item Nomenclature	Ident Code	FY 2017 (Base + OCO)		FY 2018 PB Request with CR Adj Base		FY 2018 Total PB Requests* with CR Adj Base		FY 2018 PB Request with CR Adj OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 01: Ammunition											
Rockets											
1	Rockets	A		78,734		147,454		147,454		49,050	U
Cartridges											
2	Cartridges	A		254,507		161,744		161,744		11,384	U
Bombs											
3	Practice Bombs	A		77,686		28,509		28,509			U
4	General Purpose Bombs	A		569,482		329,501		329,501			U
5	Massive Ordnance Penetrator (MOP)			3,600		38,382		38,382			U
6	Joint Direct Attack Munition	A	28596	682,114	10330	319,525	10330	319,525	16990	390,577	U
7	B61				30	(77,068)	30	(77,068)			U
	Less: Advance Procurement (PY)										U
						77,068		77,068			
8	B61										
	Advance Procurement (CY)					11,239		11,239			U
	C (FY 2018 for FY 2019) (M)					(11,239)		(11,239)			
	C (FY 2019 for FY 2020) (M)										
Other Items											
9	Cad/Pad	A		38,009		53,469		53,469			U

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10 Explosive Ordnance Disposal (EOD)	A	5,714	5,921	5,921	U
11 Spares And Repair Parts	A	740	678	678	U

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Department of the Air Force
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 Total Obligational Authority
 (Dollars in Thousands)

01 Feb 2018

Appropriation: 3011F Procurement of Ammunition, Air Force

Line No	Item Nomenclature	Ident Code	FY 2018 Total		FY 2018 Emergency		FY 2018 Less Enacted		FY 2018 Remaining Req		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 01: Ammunition											
Rockets											
1	Rockets	A		49,050							U
Cartridges											
2	Cartridges	A		11,384							U
Bombs											
3	Practice Bombs	A									U
4	General Purpose Bombs	A									U
5	Massive Ordnance Penetrator (MOP)										U
6	Joint Direct Attack Munition	A	16990	390,577							U
7	B61										U
	Less: Advance Procurement (PY)										U
8	B61										U
	Advance Procurement (CY)										U
	C (FY 2018 for FY 2019) (M)										
	C (FY 2019 for FY 2020) (M)										
Other Items											
9	Cad/Pad	A									U

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10 Explosive Ordnance Disposal (EOD)

A

U

11 Spares And Repair Parts

A

U

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Department of the Air Force
 FY 2019 President's Budget
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 (Dollars in Thousands)

01 Feb 2018

Appropriation: 3011F Procurement of Ammunition, Air Force

Line No	Item Nomenclature	Ident Code	FY 2018 Total		FY 2018 Less Enacted		FY 2018 Remaining Req		e
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 01: Ammunition									
Rockets									
1	Rockets	A		196,504			196,504		U
Cartridges									
2	Cartridges	A		173,128			173,128		U
Bombs									
3	Practice Bombs	A		28,509			28,509		U
4	General Purpose Bombs	A		329,501			329,501		U
5	Massive Ordnance Penetrator (MOP)			38,382			38,382		U
6	Joint Direct Attack Munition	A	27320	710,102			27320	710,102	U
7	B61		30	(77,068)			30	(77,068)	U
	Less: Advance Procurement (PY)								U
				77,068				77,068	
8	B61								
	Advance Procurement (CY)			11,239				11,239	U
	C (FY 2018 for FY 2019) (M)			(11,239)				(11,239)	
	C (FY 2019 for FY 2020) (M)								
Other Items									
9	Cad/Pad	A		53,469			53,469		U

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10 Explosive Ordnance Disposal (EOD)	A	5,921	5,921 U
11 Spares And Repair Parts	A	678	678 U

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01 Feb 2018

Appropriation: 3011F Procurement of Ammunition, Air Force

Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Se c
Budget Activity 01: Ammunition									
Rockets									
1	Rockets	A		345,911				345,911	U
Cartridges									
2	Cartridges	A		163,840		29,587		193,427	U
Bombs									
3	Practice Bombs	A		20,876				20,876	U
4	General Purpose Bombs	A		259,308		551,862		811,170	U
5	Massive Ordnance Penetrator (MOP)			38,111				38,111	U
6	Joint Direct Attack Munition	A	7899	234,198	28101	738,451	36000	972,649	U
7	B61		250	(120,531)			250	(120,531)	U
	Less: Advance Procurement (PY)			(-11,239)				(-11,239)	U
				109,292				109,292	
8	B61			52,731				52,731	U
	Advance Procurement (CY)								
	C (FY 2018 for FY 2019) (M)			(52,731)				(52,731)	
	C (FY 2019 for FY 2020) (M)								
Other Items									
9	Cad/Pad	A		51,455				51,455	U

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10 Explosive Ordnance Disposal (EOD)	A	6,038	6,038 U
11 Spares And Repair Parts	A	524	524 U

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Appropriation: 3011F Procurement of Ammunition, Air Force

Line No	Item Nomenclature	Ident Code	FY 2017 (Base + OCO)		FY 2018 PB Request with CR Adj Base		FY 2018 Total PB Requests* with CR Adj Base		FY 2018 PB Request with CR Adj OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
12	Modifications	A		573		1,409		1,409			U
13	Items Less Than \$5,000,000	A		5,156		5,047		5,047			U
14	Cancelled Account Adjustment			881							U
Flares											
15	Flares	A		141,240		143,983		143,983		3,498	U
Fuzes											
16	Fuzes	A		239,252		24,062		24,062		47,000	U
Total Ammunition				2,097,688		1,347,991		1,347,991		501,509	
Budget Activity 02: Weapons											

Small Arms											
17	Small Arms	A		37,459		28,611		28,611			U
Total Weapons				37,459		28,611		28,611			
Budget Activity 20: Undistributed											

Undistributed											
18	Adj to Match Continuing Resolution	A				201,825		201,825		43,399	U
Total Undistributed						201,825		201,825		43,399	
Total Procurement of Ammunition, Air Force				2,135,147		1,578,427		1,578,427		544,908	

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 (Dollars in Thousands)

01 Feb 2018

Appropriation: 3011F Procurement of Ammunition, Air Force

Line No	Item Nomenclature	Ident Code	FY 2018 Total		FY 2018 Emergency		FY 2018 Less Enacted		FY 2018 Remaining Req		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
12	Modifications	A									U
13	Items Less Than \$5,000,000	A									U
14	Cancelled Account Adjustment										U
	Flares										
15	Flares	A		3,498							U
	Fuzes										
16	Fuzes	A		47,000							U
	Total Ammunition			501,509							
	Budget Activity 02: Weapons										
	Small Arms										
17	Small Arms	A									U
	Total Weapons										
	Budget Activity 20: Undistributed										
	Undistributed										
18	Adj to Match Continuing Resolution	A		43,399							U
	Total Undistributed			43,399							
	Total Procurement of Ammunition, Air Force			544,908							

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Department of the Air Force
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 (Dollars in Thousands)

01 Feb 2018

Appropriation: 3011F Procurement of Ammunition, Air Force

Line No	Item Nomenclature	Ident Code	FY 2018 Total		FY 2018 Less Enacted		FY 2018 Remaining Req		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
12	Modifications	A		1,409			1,409		U
13	Items Less Than \$5,000,000	A		5,047			5,047		U
14	Cancelled Account Adjustment								U
Flares									
15	Flares	A		147,481			147,481		U
Fuzes									
16	Fuzes	A		71,062			71,062		U
Total Ammunition				1,849,500			1,849,500		
Budget Activity 02: Weapons									
Small Arms									
17	Small Arms	A		28,611			28,611		U
Total Weapons				28,611			28,611		
Budget Activity 20: Undistributed									
Undistributed									
18	Adj to Match Continuing Resolution	A		245,224			245,224		U
Total Undistributed				245,224			245,224		
Total Procurement of Ammunition, Air Force				2,123,335			2,123,335		

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01 Feb 2018

Appropriation: 3011F Procurement of Ammunition, Air Force

Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Se c
12	Modifications	A		1,270			1,270		U
13	Items Less Than \$5,000,000	A		4,604			4,604		U
14	Cancelled Account Adjustment								U
Flares									
15	Flares	A		125,286		12,116	137,402		U
Fuzes									
16	Fuzes	A		109,358		81,000	190,358		U
Total Ammunition				1,522,802		1,413,016	2,935,818		
Budget Activity 02: Weapons									
Small Arms									
17	Small Arms	A		64,502		8,500	73,002		U
Total Weapons				64,502		8,500	73,002		
Budget Activity 20: Undistributed									
Undistributed									
18	Adj to Match Continuing Resolution	A							U
Total Undistributed									
Total Procurement of Ammunition, Air Force				1,587,304		1,421,516	3,008,820		

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5	01	13	353190	Massive Ordnance Penetrator (MOP).....	Volume 1 - 67
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15	01	16	356010	Flares.....	Volume 1 - 107
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Appropriation 3011F: Procurement of Ammunition, Air Force

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Cad/Pad	355100	9	01	15.....	Volume 1 - 93
Cartridges	352010	2	01	12.....	Volume 1 - 11
Explosive Ordnance Disposal (EOD)	355450	10	01	15.....	Volume 1 - 97
Flares	356010	15	01	16.....	Volume 1 - 107
Fuzes	356120	16	01	18.....	Volume 1 - 123
General Purpose Bombs	353020	4	01	13.....	Volume 1 - 49
Items Less Than \$5,000,000	355990	13	01	15.....	Volume 1 - 105
Joint Direct Attack Munition	353620	6	01	13.....	Volume 1 - 71
Massive Ordnance Penetrator (MOP)	353190	5	01	13.....	Volume 1 - 67
Modifications	355970	12	01	15.....	Volume 1 - 103
Practice Bombs	353010	3	01	13.....	Volume 1 - 41
Rockets	351010	1	01	11.....	Volume 1 - 1
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ACRONYMS

GENERAL ACRONYMS

A&AS	- Advisory & Assistance Services
ABIDES	- Automated Budget Interactive Data Environment System
ACAT	- Acquisition Category
ACTD	- Advanced Concept Technology Demonstration
AGM	- Air-to-Ground Missile
AIM	- Air Intercept Missile
AIS	- Avionics Intermediate Shop
ACMI	- Aircraft Combat Maneuvering Instrumentation
AMRAAM	- Advanced Medium-Range Air-to-Air Missile
APPN	- Appropriation
ATD	- Advanced Technology Development
BA	- Budget Activity
BLSS	- Base Level Self-Sufficiency Spares
BY	- Budget Year
C3	- Command, Control, and Communication System
CFE	- Contractor Furnished Equipment
CONOPS	- Concept of Operation
CONUS	- Continental United States
CPMS	- Comprehensive Power Management System
CPT	- Cockpit Procedures Trainer
CRA	- Continuing Resolution Authority
CTS	- Countermeasures Test Set
CY	- Current Year
ECCM	- Electronic Counter Counter-Measures
ECM	- Electronic Counter Measures
ECO	- Engineering Change Orders
EOQ	- Economic Order Quantity
ECP	- Engineering Change Proposal
EPA	- Economic Price Adjustment
EW	- Electronic Warfare
EWAIISP	- Electronic Warfare Avionics Integration Support Facility
FLIR	- Forward Looking Infra Red

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FOT&E	- Follow-on Test and Evaluation
FOC	- Fully Operational Capability
FLTS	- Flight Line Test Set
FPIF	- Fixed Price Incentive Firm
FPIS	- Fixed Price Incentive Fee, Successive Targets
FY	- Fiscal Year
GANS	- Global Access Navigation & Safety
GATM	- Global Air Traffic Management
GFE	- Government Furnished Equipment
GFP	- Government Furnished Property
GPS	- Global Positioning System
GSE	- Ground Support Equipment
ICS	- Interim Contractor Support
IOC	- Initial Operating Capability
IPE	- Increased Performance Engine
JPALS	- Joint Precision Approach and Landing System
MAIS	- Major Automated Information System Program
MDAP	- Major Defense Acquisition Program
METS	- Mobile Electronic Test Stations
MYP	- Multiyear Procurement
MSIP	- Multi-Stage Improvement Program
NAVWAR	- Navigation Warfare
NMC Rate	- Not Mission Capable Rate
OFF	- Operational Flight Program
OT&E	- Operational Test and Evaluation
OWRM	- Other War Reserve Material
PAGEL	- Priced Aerospace Ground Equipment List
PB	- President's Budget
PGSE	- Peculiar Ground Support Equipment
PMA	- Program Management Administration
PMC	- Procurement Method Code
PNO	- Acquisition Program Number (MDAP Codes)
PR	- Purchase Request
PRCP	- Program Resource Collection Process
PTT	- Part Task Trainer
PY	- Prior Year

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R&M	- Reliability and Maintainability
RAA	- Required Asset Availability
RDT&E	- Research, Development, Test and Evaluation
RWR	- Radar Warning Receiver
ROM	- Rough Order of Magnitude
SS	- Sole Source
SOF	- Special Operation Force
TAF	- Tactical Air Force
TCAS	- Traffic Collision Alert and Avoidance System
TEWS	- Tactical Electronic Warfare System
TISS	- TEWS Intermediate Support System
TOA	- Total Obligation Authority
WCF	- Working Capital Fund
WRM	- War Reserve Material
WST	- Weapon System Trainer
UAV	- Unmanned Aerial Vehicle
XML	- Extensible Markup Language

BASE / ORGANIZATIONAL ACRONYMS

ACC	- Air Combat Command
AETC	- Air Education & Training Command
AFCAO	- Air Force Computer Acquisition Office
AFCESA	- Air Force Civil Engineering Support Agency
AFCIC	- AF Communications & Information Center
AFCSC	- Air Force Cryptologic Service Center
AFESC	- Air Force Engineering Services Center
AFGWC	- Air Force Global Weather Central
AFIT	- Air Force Institute of Technology
AFLCMC	- Air Force Life Cycle Management Center
AFMC	- Air Force Materiel Command
AFMETCAL	- Air Force Metrology and Calibration Office
AFMLO	- Air Force Medical Logistics Office
AFOSI	- Air Force Office of Special Investigation
AFOTEC	- Air Force Operational Test & Evaluation Center
AFPC	- Air Force Personnel Center

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AFPSL	- AF Primary Standards Lab
AFR	- Air Force Reserve
AFSOC	- AF Special Operations Command
AFSPC	- Air Force Space Command
AIA	- Air Intelligence Agency
ALC	- Air Logistics Center
AMC	- Air Mobility Command
ANG	- Air National Guard
ASC	- Aeronautical Systems Center
AETC	- Air Education Training Command
AU	- Air University
AWS	- Air Weather Service
CIA	- Central Intelligence Agency
DGSC	- Defense General Support Center
DLA	- Defense Logistics Center
DOE	- Department of Energy
DPSC	- Defense Personnel Support Center
DSCC	- Defense Supply Center, Columbus
DTIC	- Defense Technical Information Center
ER	- Eastern Range
ESC	- Electronic Systems Center
FAA	- Federal Aviation Agency
FBI	- Federal Bureau of Investigation
GSA	- General Services Administration
JCS	- Joint Chiefs of Staff
NATO	- North Atlantic Treaty Organization
OSD	- Office of the Secretary of Defense
PACAF	- Pacific Air Forces
USAF	- United States Air Force
USAFA	- United States Air Force Academy
USAFE	- United States Air Force Europe
USCENTCOM	- United States Central Command
USEUCOM	- United States European Command
USMC	- United States Marine Corps
USSTRATCOM	- United States Strategic Command
WP AFB	- Wright-Patterson AFB, OH

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CONTRACT METHOD / TYPE ACRONYMS

C	- Competitive
BA	- Basic Agreement
BOA	- Basic Ordering Agreement
BPA	- Blanket Purchasing Agreement
CS	- Cost Sharing
IDDQ	- Indefinite Delivery, Definite Quantity
IDIQ	- Indefinite Delivery, Indefinite Quantity
IDRT	- Indefinite Delivery, Requirements
Letter	- Letter
LH	- Labor-hour
MIPR	- Military Interdepartmental Purchase Request
MIPR-C	- Military Interdepartmental Purchase Request - Competitive
MIPR-OPT	- Military Interdepartmental Purchase Request - Option
MIPR-OTH	- Military Interdepartmental Purchase Request - Other
MIPR-SS	- Military Interdepartmental Purchase Request - Sole Source
OPT	- Option
OTH	- Other
PO	- Project Order
REQN	- Requisition
SS	- Sole Source
T&M	- Time and Materials
UCA	- Undefinitized Contract Action
WP	- Work Project

CONTRACTED BY ACRONYMS

11 WING	- 11th Support Wing, Washington, DC
ACC	- Air Combat Command, Langley AFB, VA
AEDC	- Arnold Engineering Development Center, Arnold AFB, TN
AAC	- Air Armament Center, Eglin AFB, FL
AEDC	- Arnold Engineering Development Center, Arnold AFB, TN
AETC	- Air Education and Training Command, Randolph AFB, TX
AFCIC	- Air Force Communications and Information Center, Washington, DC
AFCESA	- Air Force Civil Engineering Support Agency, Tyndall AFB, FL
AFFTC	- Air Force Flight Test Center, Edwards AFB, CA

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AFLCMC	- Air Force Life Cycle Management Center, Wright-Patterson AFB, OH
AFMC	- Air Force Materiel Command, Wright-Patterson AFB, OH
AFMETCAL	- Air Force Metrology and Calibration Office, Heath, Ohio
AFMLO	- Air Force Medical Logistics Office, Ft Detrick, MD
AIA	- Air Intelligence Agency, Kelly AFB, TX
AMC	- Air Mobility Command, Scott AFB, IL
ASC	- Aeronautical Systems Center, Wright-Patterson AFB, OH & Eglin AFB, FL
AFWA	- Air Force Weather Agency, Offutt AFB, NE
DGSC	- Defense General Support Center, Richmond, VA
DPSC	- Defense Personnel Support Center, Philadelphia, PA
ER	- Eastern Range, Patrick AFB, FL
ESC	- Electronic Systems Center, Hanscom AFB, MA
HSC	- Human Services Center, Brook AFB, TX
OC-ALC	- Oklahoma City Air Logistics Center, Tinker AFB, OK
OO-ALC	- Ogden Air Logistics Center, Hill AFB, UT
SMC	- Space & Missile Systems Center, Los Angeles AFB, CA
US STRATCOM	- US Strategic Command, Offutt AFB, NE
WACC	- Washington Area Contracting Center, Washington DC
WR	- Western Range, Vandenberg AFB, CA
WR-ALC	- Warner-Robins Air Logistics Center, Robins AFB, GA
AFSPC	- Air Force Space Command, Peterson AFB, CO
HQ ANG	- Headquarters, Air National Guard, Washington, DC
USAFE	- United States Air Force Europe, Ramstein AB, GE
USAFA	- United States Air Force Academy, Colorado Springs, CO
SSG	- Standard Systems Group, Maxwell AFB-Gunter Annex, AL

IDENTIFICATION CODES

Code "A"	- Line items of material which have been approved for Air Force service use
Code "B"	- Line items of material that have not been approved for Service use
OBAN	- Operating Budget Account Number, 2-digit code for unit allocated funds

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 11: Rockets	P-1 Line Item Number / Title: 351010 / Rockets
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	78.734	196.504	345.911	-	345.911	153.828	84.658	129.014	129.014	-	1,117.663
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	78.734	196.504	345.911	-	345.911	153.828	84.658	129.014	129.014	-	1,117.663
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	78.734	196.504	345.911	-	345.911	153.828	84.658	129.014	129.014	-	1,117.663

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

PY2018 funding totals include \$49.050M requested for Overseas Contingency Operations.

The Air Force uses the 2.75 inch diameter rockets system to support various missions from low collateral damage guided high explosive warhead missions to target marking and battle field illumination missions and can be employed from both high and low speed aircraft.

- The 2.75 inch diameter rocket motor (HA07) is a single stage, solid grain rocket motor used to propel guided and unguided payloads to their targets. Payloads included the illuminating flare warhead (H812), Infrared (IR) illuminating flare warhead (HA06), Signal Practice warhead (H872), and White Phosphorus (WP) warhead (H855), M-151 High Explosive warheads (H842 and H843), and also carries the WGU-59B (HB24) Advance Precision Kill Weapons System II (APKWS II) guidance section. The 2.75 inch rockets are launched from reusable pods, the LAU-131A (H149) and LAU-131 A/A (HA91) extended length launcher, carried on A-10 and F-16 aircraft. These items are procured by AFLCMC/EBH through the U.S. Army Missile Command, Joint Attack Munitions Systems (JAMS), PEO Missile and Space at Redstone Arsenal, Alabama, and Department of the Navy PMA-242 at Patuxent River Naval Air Station.

- The WP Warhead (H855) provides forward air control aircraft with target locations from a standoff distance in a hostile environment.

- 2.75 Inch IR Illuminating Rocket (HA06); used with the 2.75 inch rocket motor (HA07), provides forward air control aircraft with the target locations from a standoff distance in a hostile environment.

- The LAU-131A/A (HA91) and the LAU-68 F/A (HA94) are seven tube (capacity) extended length launchers that can accommodate both legacy length 2.75 inch diameter rockets and the extended length of the APKWS II rockets. The extended length launchers are designed to accommodate the guidance and control section within the launcher.

- WGU-59B APKWS II weapon system is employed on the A-10 and F-16 aircraft. APKWS II All Up Round (AUR) is composed of a fuze, M151/M282 Warhead, WGU-59B guidance and control section, and a MK66 rocket motor launched from an LAU-131 A/A or an LAU-68 F/A rocket launcher.

- M151 (H843 and H842)/M282 Multi-Purpose Penetrator (MPP): The M282 MPP warhead provides aircrew and ground commanders greatly enhanced weaponeering options to engage targets protected by urban and cave environments. After completing a planned product improvement initiative, the M282 will be certified for fielding with APKWS II guidance section. The M282 and M151 are low-cost fragmentation and penetrator warheads.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 11: Rockets		P-1 Line Item Number / Title: 351010 / Rockets
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>Testers such as MKIII and MKIV testers, peculiar support equipment such as clamping and torquing fixtures and tools, or other assets that pertinent to assembling and testing APKWS or unguided rockets.</p> <p>The weapon is effective in any terrain, including, but not limited to, urban, desert and mountainous. It provides an ability to engage and destroy moving and transient targets. APKWS II offers greater precision, reduced collateral damage, and increased standoff range to enhance crew survivability.</p> <p>- Items Less Than Five Million Dollars: All items have an annual procurement value of less than \$5,000,000 and are Code A. These items are procured by AFLCMC/EBH through the U.S Army Missile Command Joint Attack Munitions Systems (JAMS), PEO Missiles and Space at Redstone Arsenal Alabama, and/or the U.S. Navy PMA-242 at Patuxent River Naval Air Station, in accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.</p> <p>Funding for this exhibit is contained in PE 0207599F and PE 0208030F.</p> <p>Note: Procurement quantities can change based on negotiated options/pricing bands and available funding, in accordance with Title 10, U.S. Code Section 2308 BUY-TO-BUDGET ACQUISITION.</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 11: Rockets **P-1 Line Item Number / Title:** 351010 / Rockets

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	(H855) WHD 2.75 RKT SMK M156 PD M427	P-5a	A		- / -	- / 5.939	- / 8.000	- / 10.290	- / -	- / 10.290
P-40a	(HA06) WARHEAD, 2.75 ILLUM				- / -	- / 9.359	- / 8.000	- / 5.000	- / -	- / 5.000
P-5	APKWS	P-5a	A		- / -	- / 60.000	- / 180.504	- / 325.621	- / -	- / 325.621
P-40a	ROCKETS (ITEMS LESS THAN \$5 MILLION)				- / -	- / 3.436	- / -	- / 5.000	- / -	- / 5.000
P-40	Total Gross/Weapon System Cost				- / -	- / 78.734	- / 196.504	- / 345.911	- / -	- / 345.911

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY2019 Purchase of rockets, launchers, warheads, and guidance sections to constitute the APKWS II all-up-round (AUR), and other marking and illuminating warheads for the 2.75 inch rockets, as well as launchers. The AUR is launched from reusable pods (launchers) carried on aircraft pylons and Triple Ejection Racks (TER).

 The Air Force procures munitions to maintain appropriate operational quantity levels, as well as War Reserve Materiel (WRM) Munitions and test and training stockpiles. Active, Guard and Reserve components draw from the WRM stockpiles as required and receive test and training allocations annually based on current-year requirements.

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 11	P-1 Line Item Number / Title: 351010 / Rockets	Item Number / Title [DODIC]: (H855) WHD 2.75 RKT SMK M156 PD M427

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	5.939	8.000	10.290	-	10.290
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	5.939	8.000	10.290	-	10.290
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	5.939	8.000	10.290	-	10.290

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Hardware End Item Cost																		
Recurring Cost																		
2.75 WARHEAD WP SMOKE - H855 ^(t)	-	-	-	0.000	13,821	5.939	0.000	17,600	8.000	0.001	17,498	10.290	-	-	-	0.001	17,498	10.290
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	5.939	-	-	8.000	-	-	10.290	-	-	-	-	-	10.290
<i>Subtotal: Hardware - Hardware End Item Cost</i>	-	-	-	-	-	5.939	-	-	8.000	-	-	10.290	-	-	-	-	-	10.290
Gross/Weapon System Cost	-	-	-	-	-	5.939	-	-	8.000	-	-	10.290	-	-	-	-	-	10.290

Remarks:

Unit prices are provided by the Joint Attack Munitions Systems (JAMS) Program Office, Dept of Army. Prices shown represent the efforts to produce items for the DoD Military Services and other customers purchasing the same or similar items, and to provide technical support and surveillance of the Air Force order.

Unit price variances among current and prior fiscal years are due to the total customer orders per ordering period. Costs, including overhead and production engineering are developed using a total volume matrix, with high, medium and low total quantity ranges. Other cost drivers include complex or scarce materials such as white phosphorous.

^(t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force								Date: February 2018				
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 11			P-1 Line Item Number / Title: 351010 / Rockets					Item Number / Title [DODIC]: (H855) WHD 2.75 RKT SMK M156 PD M427				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
2.75 WARHEAD WP SMOKE - H855		2017	GENERAL DYNAMICS / REDSTONE ARSENAL	MIPR	Redstone Arsenal, AL	Jun 2017	Jun 2018	13,821	0.000	Y		
2.75 WARHEAD WP SMOKE - H855		2018	GENERAL DYNAMICS / REDSTONE ARSENAL	MIPR	Redstone Arsenal, AL	Jun 2018	Jun 2019	17,600	0.000	Y		
2.75 WARHEAD WP SMOKE - H855		2019	GENERAL DYNAMICS / REDSTONE ARSENAL	MIPR	Redstone Arsenal, AL	Jun 2019	Jun 2020	17,498	0.001	Y		

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 11 **P-1 Line Item Number / Title:** 351010 / Rockets **Aggregated Items Title:** (HA06) WARHEAD, 2.75 ILLUM

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
(HA06) WARHEAD, 2.75 ILLUM	A		-	-	-	0.003	3,689	9.359	0.003	2,905	8.000	0.003	1,714	5.000	-	-	-	0.003	1,714	5.000
Subtotal: Uncategorized			-	-	-	-	-	9.359	-	-	8.000	-	-	5.000	-	-	-	-	-	5.000
Total			-	-	-	-	-	9.359	-	-	8.000	-	-	5.000	-	-	-	-	-	5.000

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 11	P-1 Line Item Number / Title: 351010 / Rockets	Item Number / Title [DODIC]: APKWS

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	60.000	180.504	325.621	-	325.621
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	60.000	180.504	325.621	-	325.621
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	60.000	180.504	325.621	-	325.621

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Advanced Precision Kill Weapon System (APKWS) Cost																		
Recurring Cost																		
Guidance Section ^(†)	-	-	-	0.011	4,500	51.237	0.023	7,279	167.599	0.025	7,279	183.461	-	-	-	0.025	7,279	183.461
(HA07) ROCKET MOTOR MK-66	-	-	-	0.000	1,000	0.495	-	-	-	0.001	182,109	111.968	-	-	-	0.001	182,109	111.968
(HA91) LAU-131A/ A ROCKET LAUNCHER ^(†)	-	-	-	0.019	100	1.900	0.015	146	2.165	0.012	402	4.800	-	-	-	0.012	402	4.800
Warhead M151 ^(†)	-	-	-	0.001	875	1.309	0.001	1,822	1.940	0.000	17,059	5.000	-	-	-	0.000	17,059	5.000
Warhead M282 ^(†)	-	-	-	0.004	875	3.079	0.005	1,820	8.443	0.003	2,583	8.022	-	-	-	0.003	2,583	8.022
WGU-59 Single Variant Development	-	-	-	-	-	-	-	-	-	-	-	11.000	-	-	-	-	-	11.000
Rocket Launcher Tester (AN/USM-715)	-	-	-	-	-	-	-	-	-	0.015	67	1.020	-	-	-	0.015	67	1.020
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	58.020	-	-	180.148	-	-	325.271	-	-	-	-	-	325.271
<i>Subtotal: Hardware - Advanced Precision Kill Weapon System (APKWS) Cost</i>	-	-	-	-	-	58.020	-	-	180.148	-	-	325.271	-	-	-	-	-	325.271
Support - APKWS Cost																		
Production Support	-	-	-	-	-	1.980	-	-	0.356	-	-	0.350	-	-	-	-	-	0.350
<i>Subtotal: Support - APKWS Cost</i>	-	-	-	-	-	1.980	-	-	0.356	-	-	0.350	-	-	-	-	-	0.350

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Exhibit P-5, Cost Analysis: PB 2019 Air Force												Date: February 2018					
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 11						P-1 Line Item Number / Title: 351010 / Rockets						Item Number / Title [DODIC]: APKWS					
ID Code (A=Service Ready, B=Not Service Ready) : A										MDAP/MAIS Code:							

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Gross/Weapon System Cost	-	-	-	-	-	60.000	-	-	180.504	-	-	325.621	-	-	-	-	-	325.621

(t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 11	P-1 Line Item Number / Title: 351010 / Rockets	Item Number / Title [DODIC]: APKWS
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Guidance Section		2017	BAE / Nashua, NH	SS / FFP	NAVAIR	Apr 2017	Dec 2017	4,500	0.011	Y		
Guidance Section		2018	BAE / Nashua, NH	SS / FFP	NAVAIR	Apr 2018	Dec 2018	7,279	0.023	Y		
Guidance Section		2019	BAE / Nashua, NH	SS / FFP	NAVAIR	Apr 2019	Apr 2020	7,279	0.025	Y		
(HA91) LAU-131A/A ROCKET LAUNCHER		2017	Arnold Defense / St. Louis, MO	SS / FFP	TBD	Jun 2017	Jun 2018	100	0.019	Y		
(HA91) LAU-131A/A ROCKET LAUNCHER		2018	Arnold Defense / St. Louis, MO	SS / FFP	NAVAIR	Jun 2018	Jun 2019	146	0.015	Y		
(HA91) LAU-131A/A ROCKET LAUNCHER		2019	Arnold Defense / St. Louis, MO	SS / FFP	NAVAIR	Jun 2019	Jun 2020	402	0.012	Y		
Warhead M151		2017	General Dynamics / Burlington, VT	C / FFP	Redstone Arsenal, AL	Apr 2017	Apr 2018	875	0.001	Y		
Warhead M151		2018	General Dynamics / Burlington, VT	C / FFP	Redstone Arsenal, AL	Apr 2018	Apr 2019	1,822	0.001	Y		
Warhead M151		2019	General Dynamics / Burlington, VT	C / FFP	Redstone Arsenal, AL	Apr 2019	Apr 2020	17,059	0.000	Y		
Warhead M282		2017	General Dynamics / Burlington, VT	C / FFP	Redstone Arsenal, AL	Apr 2017	Apr 2018	875	0.004	Y		
Warhead M282		2018	NAMMO / Raufoss, Norway	C / FFP	TBD	Apr 2018	Apr 2019	1,820	0.005	Y		

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 11	P-1 Line Item Number / Title: 351010 / Rockets	Aggregated Items Title: ROCKETS (ITEMS LESS THAN \$5 MILLION)
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
(H812) WHD ILLUM M257	A		-	-	-	-	-	-	-	-	-	0.003	1,748	5.000	-	-	-	0.003	1,748	5.000
(H149) LAUNCHER LAU-131A F/2.75	A		-	-	-	0.011	323	3.436	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Uncategorized			-	-	-	-	-	3.436	-	-	-	-	-	5.000	-	-	-	-	-	5.000
Total			-	-	-	-	-	3.436	-	-	-	-	-	5.000	-	-	-	-	-	5.000

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 12: Cartridges	P-1 Line Item Number / Title: 352010 / Cartridges
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	254.507	173.128	163.840	29.587	193.427	159.668	148.967	157.780	154.672	-	1,242.149
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	254.507	173.128	163.840	29.587	193.427	159.668	148.967	157.780	154.672	-	1,242.149
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	254.507	173.128	163.840	29.587	193.427	159.668	148.967	157.780	154.672	-	1,242.149

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

PY2017 funding includes \$9.830M appropriated for Overseas Contingency Operations.
CY2018 funding includes \$11.384M appropriated for Overseas Contingency Operations.

The following Weapon System Cost Elements are represented in this P-1 line:

-7.62MM Ball Linked M80 (A143): The M240 Machine Gun requires this linked round, used against personnel and unarmored targets. Air Force procures this item through the Single Manager for Conventional Ammunition (SMCA), Department of the Army.

-25MM Target Practice (TP), PGU-23/U (A978): 25MM PGU-23 is a target practice round used in the GAU-12/A gun systems applicable to the F-35 and AC-130/U aircraft. The round is also a kinetic energy combat round used to limit collateral damage potential. Air Force procures 25MM through the Single Manager for Conventional Ammunition (SMCA), Department of the Army.

-20MM PGU-28A/B (AA22): Primary combat round, high explosive incendiary used with the M61 gun system applicable to the F-15 and F-16 aircraft. Designed for use against air-to-air and air-to-ground targets. Both the Air Force and Navy use this ammunition for combat only. Air Force procures 20MM through the Single Manager for Conventional Ammunition (SMCA), Department of the Army.

-20MM TP Round PGU-27A/B (AA24): This round is used for air-to-air and air-to-ground training in the M61 aircraft gun on F-15, F-16 and F-22A aircraft. The cartridge is electrically primed and has no fuze. The projectile is a solid slug sized to match the ballistics of the 20MM combat round. 20MM is the primary ammunition used in Air Force and Navy aircraft gun systems to provide a training capability to complement the PGU-28 high explosive incendiary combat round and ensure training is consistent with combat operations. Air Force procures 20MM through the Army Single Manager for Conventional Ammunition (SMCA), Department of the Army and engineering support from the Navy.

-5.56MM Blue Marking Cartridge (AB09): This round is used in force-on-force training of personnel in M16A2 and M4 rifles. It consists of a plastic projectile in a brass cartridge case. Air Force procures this item through the Single Manager for Conventional Ammunition (SMCA), Department of the Army.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 12: Cartridges		P-1 Line Item Number / Title: 352010 / Cartridges
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>-5.56MM Frangible (AA40): This is the primary training round for the Air Force and consists of a lead-free small rifle primer in a brass cartridge case. These cartridges are more environmentally friendly than standard 5.56MM ball cartridges. The case is made of reusable/recyclable brass, which is the same as 5.56MM ball ammunition. The 5.56MM frangible cartridges are used in M16-series rifles, which include M4 rifles. The Air Force procures this item through the Navy.</p> <p>-5.56MM Ball M855 (AB57): This is a lead-free primary combat round used in the M16A2 and M4 rifles, against personnel and unarmored targets. Air Force procures this item through the Single Manager for Conventional Ammunition (SMCA), Department of the Army.</p> <p>-30MM HEI PGU-13D/B Round (B104): This is a High Explosive Incendiary (HEI) round for the GAU-8/A cannon on the A-10 aircraft. It contains an explosive material for use against light armor and personnel. Air Force procures 30MM from the Single Manager for Conventional Ammunition (SMCA), Department of the Army.</p> <p>-30MM Target Practice (TP) Cartridge PGU-15A/B (B116): A solid, inert projectile used to train aircrew in the use of the GAU-8/A cannon on the A-10 aircraft. The cartridge is mechanically primed and has no fuze, while the projectile is a solid slug designed to match the ballistics of high explosive incendiary and armor piercing incendiary cartridges. Air Force procures 30MM from the Single Manager for Conventional Ammunition (SMCA), Department of the Army.</p> <p>-BBU-35A/B Impulse Cartridge (MG62): Impulse Cartridge used to eject countermeasure flares and chaff from various airframes (A-10, MC-130, F-16, KC-130, C-130, F-15, C-17, B-1).). It is an electrically initiated impulse cartridge consisting of a center pin which is glass to metal sealed inside a cylindrical aluminum casing which is crimped over a scored metal closure on the output end. Applications include MJU-48, M212, MJU-46, MJU-50, MJU-66, MJU-64, RR-188, and RR-170.</p> <p>-BBU-36A/B Impulse Cartridge (MG11): Impulse cartridge used to eject countermeasure flares from various airframes (A-10, C-17, F-15, F-16, F-22, MC-130). It is an electrically initiated impulse cartridge consisting of a center pin which is glass to metal sealed inside a cylindrical aluminum casing which is crimped over a scored metal closure on the output end. Applications include MJU-7A/B, MJU-53/B, MJU-62/B, MJU-59/B, MJU-10/B, MJU-40/B, and MJU-51A/B.</p> <p>-BBU-48A/B Impulse Cartridge (SS27): Dual squib impulse cartridge used to eject chaff from various airframes (A-10, C-17, F-15, F-16, F-22, MC-130). It is an electrically initiated impulse cartridge consisting of two squibs each with a glass to metal seal inside a cylindrical aluminum casing with scored metal on the output end. A small circuit board allows for the functioning of one squib at a time without repositioning the countermeasure. Applications include RR-180 and RR-196.</p> <p>-25MM PGU-48/B (AB98): 25MM PGU-48/B (formerly Frangible Armor Piercing (FAP)) round to be used in GAU-22 gun on F-35/JSF.</p> <p>-Items Less Than Five Million Dollars: All items have an annual procurement of less than \$5,000,000 and are Code A.</p> <p>In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.</p> <p>Funding for this exhibit contained in PEs: 0207580F, 0207599F, 0208015F and 0208030F.</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 12: Cartridges **P-1 Line Item Number / Title:** 352010 / Cartridges

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	(A143) 7.62MM BALL LINKED (M80)	P-5a	A		- / -	- / 5.500	- / -	- / 2.750	- / -	- / 2.750
P-40a	(A978) CTG, 25MM, TP (PGU-23/U)				- / -	- / 0.000	- / 17.000	- / 4.000	- / -	- / 4.000
P-5	(AA22) 20MM PGU-28A/B SEMI-AP, HEI	P-5a	A		- / -	- / 48.689	- / 18.667	- / 33.000	- / -	- / 33.000
P-5	(AA24) 20MM, TP PGU-27A/B	P-5a	A		- / -	- / 42.628	- / 26.694	- / -	- / -	- / -
P-40a	(AA40) 5.56MM, FRANGIBLE				- / -	- / 8.000	- / 9.000	- / 9.000	- / 6.000	- / 15.000
P-40a	(AB09) 5.56 BLUE MARKING CARTRIDGE				- / -	- / 5.000	- / 3.000	- / 1.500	- / -	- / 1.500
P-5	(AB57) 5.56 CLIPPED BALL, LEAD FREE	P-5a	A		- / -	- / 6.000	- / 6.000	- / 6.193	- / 4.000	- / 10.193
P-40a	(AB98) 25MM PGU-48/B				- / -	- / 10.000	- / 4.000	- / 20.100	- / -	- / 20.100
P-40a	(AC29) PGU-30MM Cartridges HEI/TP Urban Mix				- / -	- / -	- / -	- / -	- / 9.587	- / 9.587
P-5	(B116) 30MM PGU-15/B, TP	P-5a	A		- / -	- / 41.707	- / 36.594	- / 28.934	- / 7.916	- / 36.850
P-40a	(MG62) BBU-35/B IMPULSE CARTRIDGE				- / -	- / 5.895	- / 5.000	- / 5.008	- / -	- / 5.008
P-40a	(SS-27) BBU-48/B IMPULSE CARTRIDGE				- / -	- / 4.000	- / 4.000	- / 4.000	- / -	- / 4.000
P-40a	CARTRIDGES (ITEMS LESS THAN \$5 MILLION)				- / -	- / 43.648	- / 38.561	- / 45.347	- / 2.084	- / 47.431
P-40	Total Gross/Weapon System Cost				- / -	- / 254.507	- / 173.128	- / 163.840	- / 29.587	- / 193.427

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY2019 purchases small arms ammunition for use against personnel and unarmored targets; medium caliber ammunition used in aircraft gun systems against air-to-air, air-to-ground and light armored targets, as well as certain impulse cartridges needed to eject weapons stores from bomb racks and instigate aircraft countermeasures.

The Air Force procures munitions to maintain appropriate quantities in the War Reserve Materiel (WRM) Munitions and test and training stockpiles. Active, Guard and Reserve components draw from the WRM stockpiles as required and receive test and training allocations annually based on current-year requirements.

-20MM PGU-28 (AA22): This procurement is fulfill WRM requirements. Current stockpile inventory is 37% of total inventory objective. Low combat use.

-20MM PGU-27 (AA24): This procurement is critical to replenish WRM stockpiles supporting pilot training and proficiency.

-30MM PGU-15 (B116): This procurement is critical to replenish WRM stockpiles supporting pilot training and proficiency. 95% of total inventory is in the field, 5% in depot. Currently expending rounds equal to purchases each year and difficult to meet training requirements.

-25MM PGU-48/B (AB98): 25MM PGU-48/B (formerly Frangible Armor Piercing (FAP)) or other alternative round to be used in GAU-22 gun on the F-35/JSF.

-20MM PGU-39 Dummy (A931: Procurement is critical to replenish aging stockpiles of dummy ammunition rounds. Rounds are critical in providing gun system training, troubleshooting, and to verify weapon system readiness. Current inventory is severely aged (30+ years).

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 12: Cartridges		P-1 Line Item Number / Title: 352010 / Cartridges
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>-BBU-35A/B IMPULSE CARTRIDGE (MG62): This procurement is critical to replenish WRM stockpiles/requirements. Approximately 2M assets are expended annually and 24% (1.4M) of the current stockpile is projected to expire by the end of FY18 if unused. Current stockpile inventory is 48% of the total inventory objective requirement.</p> <p>-BBU-36A/B IMPULSE CARTRIDGE (MG11): This procurement is critical to maintain WRM stockpiles/requirements. Approximately 427K assets are expended annually and 12% (162K) of the current stockpile is projected to expire by the end of FY18 if unused. Current stockpile inventory is currently meeting the total inventory objective requirement.</p> <p>-BBU-48A/B IMPULSE CARTRIDGE (SS27): This procurement is critical to replenish WRM stockpiles/requirements. Approximately 68K assets are expended annually and none are projected to expire in FY18. Current stockpile inventory is 46% of the total inventory objective requirement.</p>		

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 12	P-1 Line Item Number / Title: 352010 / Cartridges	Item Number / Title [DODIC]: (A143) 7.62MM BALL LINKED (M80)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	5.500	-	2.750	-	2.750
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	5.500	-	2.750	-	2.750
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	5.500	-	2.750	-	2.750

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Hardware End Item Cost																		
Recurring Cost																		
7.62MM M80 BALL, FLASH SUPPRESSED PROPELLANT ^(†)	-	-	-	0.000	10,101,923	5.253	-	-	-	0.000	4,576,786	2.563	-	-	-	0.000	4,576,786	2.563
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	5.253	-	-	-	-	-	2.563	-	-	-	-	-	2.563
<i>Subtotal: Hardware - Hardware End Item Cost</i>	-	-	-	-	-	5.253	-	-	-	-	-	2.563	-	-	-	-	-	2.563
Support - Support End Item Cost																		
PRODUCTION ENGINEERING	-	-	-	-	-	0.229	-	-	-	-	-	0.184	-	-	-	-	-	0.184
ACCEPTANCE TESTING	-	-	-	-	-	0.013	-	-	-	-	-	-	-	-	-	-	-	-
QUALITY ASSURANCE	-	-	-	-	-	0.005	-	-	-	-	-	0.003	-	-	-	-	-	0.003
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	0.247	-	-	-	-	-	0.187	-	-	-	-	-	0.187
Gross/Weapon System Cost	-	-	-	-	-	5.500	-	-	-	-	-	2.750	-	-	-	-	-	2.750

Remarks:

Item has been moved to P-40a Items Less Than \$5 Million.
 Prices are provided by the Single Manager for Conventional Ammunition (SMCA), Department of the Army. Prices shown represent the SMCA efforts to obtain hardware, containers, pallets, straps, explosive material, etc. for the DoD Military Services purchasing the same or similar items, and to load, assemble and pack the Air Force order. Cost drivers may include economic price adjustments, currency rate fluctuations, price of complex or scarce materials and orders from other Military Services (increases/decreases).

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 12	P-1 Line Item Number / Title: 352010 / Cartridges	Item Number / Title [DODIC]: (A143) 7.62MM BALL LINKED (M80)
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 12	P-1 Line Item Number / Title: 352010 / Cartridges	Item Number / Title [DODIC]: (A143) 7.62MM BALL LINKED (M80)
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
7.62MM M80 BALL, FLASH SUPPRESSED PROPELLANT		2017	ALLIANT TECH (LCAAP / INDEPENDENCE, MO)	MIPR	ACC-ROCK ISLAND	Mar 2017	Oct 2017	10,101,923	0.000	Y		Jan 2017
7.62MM M80 BALL, FLASH SUPPRESSED PROPELLANT		2019	ALLIANT TECH (LCAAP / INDEPENDENCE, MO)	MIPR	ACC-ROCK ISLAND	Mar 2019	Oct 2019	4,576,786	0.000	Y		

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 12 **P-1 Line Item Number / Title:** 352010 / Cartridges **Aggregated Items Title:** (A978) CTG, 25MM, TP (PGU-23/U)

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
(A978) CTG, 25MM, TP (PGU-23/U)	A		-	-	-	-	-	0.000	0.000	590,893	17,000	0.000	173,913	4,000	-	-	-	0.000	173,913	4,000
Subtotal: Uncategorized			-	-	-	-	-	0.000	-	-	17,000	-	-	4,000	-	-	-	-	-	4,000
Total			-	-	-	-	-	0.000	-	-	17,000	-	-	4,000	-	-	-	-	-	4,000

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 12	P-1 Line Item Number / Title: 352010 / Cartridges	Item Number / Title [DODIC]: (AA22) 20MM PGU-28A/B SEMI-AP, HEI

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	48.689	18.667	33.000	-	33.000
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	48.689	18.667	33.000	-	33.000
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	48.689	18.667	33.000	-	33.000

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Hardware End Item Cost																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK ^(†)	-	-	-	0.000	1,923,240	47.196	0.000	610,138	18.188	0.000	1,093,000	32.582	-	-	-	0.000	1,093,000	32.582
BOX, METAL M548	-	-	-	0.000	6,553	0.285	0.000	2,464	0.111	0.000	4,407	0.198	-	-	-	0.000	4,407	0.198
PALLET MK3-0	-	-	-	0.000	300	0.053	0.000	221	0.019	0.000	192	0.035	-	-	-	0.000	192	0.035
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	47.535	-	-	18.318	-	-	32.815	-	-	-	-	-	32.815
<i>Subtotal: Hardware - Hardware End Item Cost</i>	-	-	-	-	-	47.535	-	-	18.318	-	-	32.815	-	-	-	-	-	32.815
Support - Support End Item Cost																		
QUALITY ASSURANCE	-	-	-	-	-	0.063	-	-	0.027	-	-	0.012	-	-	-	-	-	0.012
FIRST ARTICLE TESTING	-	-	-	-	-	1.091	-	-	0.322	-	-	0.173	-	-	-	-	-	0.173
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	1.154	-	-	0.349	-	-	0.185	-	-	-	-	-	0.185
Gross/Weapon System Cost	-	-	-	-	-	48.689	-	-	18.667	-	-	33.000	-	-	-	-	-	33.000

Remarks:

Prices are provided by the Single Manager for Conventional Ammunition (SMCA), Department of the Army. Prices shown represent the SMCA efforts to obtain containers, pallets, explosive material, lugs, etc. for the DoD Military Services purchasing the same or similar items, and to load, assemble and pack the Air Force order. Cost drivers may include economic price adjustments, currency rate fluctuations, price of complex or scarce materials and orders from other Military Services (increases/decreases).

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 12	P-1 Line Item Number / Title: 352010 / Cartridges	Item Number / Title [DODIC]: (AA22) 20MM PGU-28A/B SEMI-AP, HEI
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	
<p>Load, Assemble and Pack (LAP) costs are applicable to production, build-up and packing/boxing the ammunition rounds. The LAP quantity is the number of completed rounds to be delivered into the AF inventory.</p> <p>Packaging, Crating and Handling (PC&H) cost is associated with transferring the completed order from production to the first destination.</p> <p>(t) indicates the presence of a P-5a</p>		

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 12	P-1 Line Item Number / Title: 352010 / Cartridges	Item Number / Title [DODIC]: (AA22) 20MM PGU-28A/B SEMI-AP, HEI
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK		2017	General Dynamics & Alliant Tech / Marion, IL and Plymouth, MN	MIPR	AFLCMC Hill AFB	Mar 2017	Mar 2018	1,923,240	0.000	Y		
LOAD, ASSEMBLE, PACK		2018	General Dynamics & Alliant Tech / Marion, IL and Plymouth, MN	MIPR	AFLCMC Hill AFB	Mar 2018	Apr 2019	610,138	0.000	Y		

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 12		P-1 Line Item Number / Title: 352010 / Cartridges
		Item Number / Title [DODIC]: (AA24) 20MM, TP PGU-27A/B

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	42.628	26.694	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	42.628	26.694	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	42.628	26.694	-	-	-

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Hardware End Item Cost																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK ^(†)	-	-	-	0.000	3,630,100	41.710	0.000	2,125,200	26.097	-	-	-	-	-	-	-	-	-
BOX METAL M548	-	-	-	0.000	14,696	0.613	0.000	8,587	0.385	-	-	-	-	-	-	-	-	-
PALLET MK3-0	-	-	-	0.000	643	0.114	0.000	373	0.067	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	42.437	-	-	26.550	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - Hardware End Item Cost</i>	-	-	-	-	-	42.437	-	-	26.550	-	-	-	-	-	-	-	-	-
Support - Support End Item Cost																		
QUALITY ASSURANCE	-	-	-	-	-	0.012	-	-	0.013	-	-	-	-	-	-	-	-	-
FIRST ARTICLE TEST	-	-	-	-	-	0.173	-	-	0.131	-	-	-	-	-	-	-	-	-
ACCEPTANCE TESTING	-	-	-	-	-	0.006	-	-	0.000	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	0.191	-	-	0.144	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	-	-	-	42.628	-	-	26.694	-	-	-	-	-	-	-	-	-

Remarks:

Prices are provided by the Single Manager for Conventional Ammunition (SMCA), Department of the Army. Prices shown represent the SMCA efforts to obtain containers, pallets, explosive material, lugs, etc. for the DoD Military Services purchasing the same or similar items, and to load, assemble and pack the Air Force order. Cost drivers may include economic price adjustments, currency rate fluctuations, price of complex or scarce materials and orders from other Military Services (increases/decreases).

Load, Assemble and Pack (LAP) costs are applicable to production, build-up and packaging the individual round. The LAP quantity is the number of completed rounds to be delivered into the AF inventory.

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 12	P-1 Line Item Number / Title: 352010 / Cartridges	Item Number / Title [DODIC]: (AA24) 20MM, TP PGU-27A/B
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:
<p>Packaging, Crating and Handling (PC&H) cost is associated with transferring the completed order from production to the first destination.</p> <p>(t) indicates the presence of a P-5a</p>		

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 12	P-1 Line Item Number / Title: 352010 / Cartridges	Item Number / Title [DODIC]: (AA24) 20MM, TP PGU-27A/B
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK		2017	GENERAL DYNAMICS AND ALLIANT TECH / MARION, IL AND PLYMOUTH, MN	MIPR	ACC-ROCK ISLAND	Mar 2017	Mar 2018	3,630,100	0.000	Y		Jan 2017
LOAD, ASSEMBLE, PACK		2018	GENERAL DYNAMICS AND ALLIANT TECH / MARION, IL AND PLYMOUTH, MN	MIPR	ACC-ROCK ISLAND	Mar 2018	Mar 2019	2,125,200	0.000	Y		Jan 2018

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 12 **P-1 Line Item Number / Title:** 352010 / Cartridges **Aggregated Items Title:** (AA40) 5.56MM, FRANGIBLE

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
5.56 MM FRANG (AA40)	A		-	-	-	0.000	17,391,304	8.000	0.000	21,428,571	9.000	0.000	21,428,571	9.000	0.000	14,285,714	6.000	0.000	35,714,285	15.000
Subtotal: Uncategorized			-	-	-	-	-	8.000	-	-	9.000	-	-	9.000	-	-	6.000	-	-	15.000
Total			-	-	-	-	-	8.000	-	-	9.000	-	-	9.000	-	-	6.000	-	-	15.000

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
 The Air Force purchases Frangible rounds through the Dept of Navy. Prices for current and/or prior fiscal years represent the Vendor's total cost for completed and boxed rounds. Prices for budget years are estimates from industry obtained from the Navy.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force														Date: February 2018					
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 12						P-1 Line Item Number / Title: 352010 / Cartridges						Aggregated Items Title: (AB09) 5.56 BLUE MARKING CARTRIDGE							

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
(AB09) 5.56 BLUE MARKING CARTRIDGE	A		-	-	-	0.000	6,329,114	5.000	0.000	4,477,612	3.000	0.000	2,368,920	1.500	-	-	-	0.000	2,368,920	1.500
Subtotal: Uncategorized			-	-	-	-	-	5.000	-	-	3.000	-	-	1.500	-	-	-	-	-	1.500
Total			-	-	-	-	-	5.000	-	-	3.000	-	-	1.500	-	-	-	-	-	1.500

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
(AB09) 5.56 Blue Marking Cartridge FY18 funding has been moved to P-40a Cartridges (Items Less Than \$5 Million).

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 12	P-1 Line Item Number / Title: 352010 / Cartridges	Item Number / Title [DODIC]: (AB57) 5.56 CLIPPED BALL, LEAD FREE

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	6.000	6.000	6.193	4.000	10.193
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	6.000	6.000	6.193	4.000	10.193
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	6.000	6.000	6.193	4.000	10.193

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Hardware End Item Cost																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK ^(†)	-	-	-	0.000	18,456,666	5.537	0.000	18,300,000	5.490	0.000	20,150,000	5.642	0.000	12,963,500	3.630	0.000	33,113,500	9.272
BOX, METAL M2A2	-	-	-	0.000	21,480	0.281	0.000	21,786	0.298	0.000	24,190	0.316	0.000	15,562	0.203	0.000	39,752	0.519
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	5.818	-	-	5.788	-	-	5.958	-	-	3.833	-	-	9.791
<i>Subtotal: Hardware - Hardware End Item Cost</i>	-	-	-	-	-	5.818	-	-	5.788	-	-	5.958	-	-	3.833	-	-	9.791
Support - Support End Item Cost																		
PRODUCTION ENGINEERING	-	-	-	-	-	0.179	-	-	0.207	-	-	0.223	-	-	0.155	-	-	0.378
QUALITY ASSURANCE	-	-	-	-	-	0.003	-	-	0.005	-	-	0.012	-	-	0.012	-	-	0.024
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	0.182	-	-	0.212	-	-	0.235	-	-	0.167	-	-	0.402
Gross/Weapon System Cost	-	-	-	-	-	6.000	-	-	6.000	-	-	6.193	-	-	4.000	-	-	10.193

^(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force								Date: February 2018				
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 12			P-1 Line Item Number / Title: 352010 / Cartridges					Item Number / Title [DODIC]: (AB57) 5.56 CLIPPED BALL, LEAD FREE				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ M)	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK		2017	OLIN AND ALLIANT / INDEPENDENCE, MO AND EAST ALTON, IL	MIPR	ACC-ROCK ISLAND	Apr 2017	Apr 2018	18,456,666	0.000	Y		Jan 2017
LOAD, ASSEMBLE, PACK		2018	OLIN AND ALLIANT / INDEPENDENCE, MO AND EAST ALTON, IL	MIPR	ACC-ROCK ISLAND	Apr 2018	Apr 2019	18,300,000	0.000	Y		Jan 2018
LOAD, ASSEMBLE, PACK		2019	OLIN AND ALLIANT / INDEPENDENCE, MO AND EAST ALTON, IL	MIPR	ACC-ROCK ISLAND	Apr 2019	Apr 2020	20,150,000	0.000	Y		

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 12	P-1 Line Item Number / Title: 352010 / Cartridges	Aggregated Items Title: (AB98) 25MM PGU-48/B
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
25MM PGU-48/B	A		-	-	-	0.000	48,309	10.000	0.000	15,444	4.000	0.000	135,472	20.100	-	-	-	0.000	135,472	20.100
Subtotal: Uncategorized			-	-	-	-	-	10.000	-	-	4.000	-	-	20.100	-	-	-	-	-	20.100
Total			-	-	-	-	-	10.000	-	-	4.000	-	-	20.100	-	-	-	-	-	20.100

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:

The PGU-48/B is a high performance 25MM Frangible Armor Piercing (FAP) Round that is being procured for use on the F-35/A.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force														Date: February 2018					
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 12							P-1 Line Item Number / Title: 352010 / Cartridges							Aggregated Items Title: (AC29) PGU-30MM Cartridges HEI/TP Urban Mix					

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
(AC29) 30MM Cartridges HIE/TP Urban Mix	A		-	-	-	-	-	-	-	-	-	-	-	0.000	213,044	9.587	0.000	213,044	9.587	
Subtotal: Uncategorized			-	-	-	-	-	-	-	-	-	-	-	-	-	9.587	-	-	9.587	
Total			-	-	-	-	-	-	-	-	-	-	-	-	-	9.587	-	-	9.587	

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 12	P-1 Line Item Number / Title: 352010 / Cartridges	Item Number / Title [DODIC]: (B116) 30MM PGU-15/B, TP

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	41.707	36.594	28.934	7.916	36.850
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	41.707	36.594	28.934	7.916	36.850
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	41.707	36.594	28.934	7.916	36.850

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Hardware End Item Cost																		
Recurring Cost																		
LOAD,ASSEMBLE,PACK ^(†)	-	-	-	0.000	1,734,900	38.341	0.000	1,459,180	33.663	0.000	1,162,000	26.807	0.000	315,250	7.273	0.000	1,477,250	34.080
CONTAINER CNU-332E	-	-	-	0.001	3,122	1.575	0.001	2,626	1.352	0.000	2,090	0.917	0.000	567	0.249	0.000	2,657	1.165
TUBE AND STRAP ASSEMBLY	-	-	-	0.000	3,122	1.388	0.000	2,626	1.167	0.000	2,090	0.929	0.000	567	0.252	0.000	2,657	1.181
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	41.304	-	-	36.183	-	-	28.653	-	-	7.773	-	-	36.426
<i>Subtotal: Hardware - Hardware End Item Cost</i>	-	-	-	-	-	41.304	-	-	36.183	-	-	28.653	-	-	7.773	-	-	36.426
Support - Support End Item Cost																		
QUALITY ASSURANCE	-	-	-	-	-	0.012	-	-	0.012	-	-	0.010	-	-	0.005	-	-	0.015
ACCEPTANCE TESTING	-	-	-	-	-	0.134	-	-	0.129	-	-	0.011	-	-	0.005	-	-	0.016
FIRST ARTICLE TEST	-	-	-	-	-	0.257	-	-	0.270	-	-	0.260	-	-	0.133	-	-	0.393
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	0.403	-	-	0.411	-	-	0.281	-	-	0.143	-	-	0.424
Gross/Weapon System Cost	-	-	-	-	-	41.707	-	-	36.594	-	-	28.934	-	-	7.916	-	-	36.850

Remarks:

Prices are provided by the Single Manager for Conventional Ammunition (SMCA), Department of the Army. Prices shown represent the SMCA efforts to obtain hardware, containers, pallets, straps, explosive material, lugs, etc. for the DoD Military Services purchasing the same or similar items, and to load, assemble and pack the Air Force order. Cost drivers may include economic price adjustments, currency rate fluctuations, price of complex or scarce materials and orders from other Military Services (increases/decreases).

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 12	P-1 Line Item Number / Title: 352010 / Cartridges	Item Number / Title [DODIC]: (B116) 30MM PGU-15/B, TP
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	
Load, Assemble and Pack (LAP) costs are applicable to production, build-up and packaging the individual round.		
(†) indicates the presence of a P-5a		

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 12	P-1 Line Item Number / Title: 352010 / Cartridges	Item Number / Title [DODIC]: (B116) 30MM PGU-15/B, TP
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD,ASSEMBLE,PACK		2017	GENERAL DYNAMICS AND ALLIANT TECH / MARION, IL AND MESA, AZ	MIPR	ACC-ROCK ISLAND	Mar 2017	Apr 2018	1,734,900	0.000	Y		
LOAD,ASSEMBLE,PACK		2018	GENERAL DYNAMICS AND ALLIANT TECH / MARION, IL AND MESA, AZ	MIPR	ACC-ROCK ISLAND	Mar 2018	Apr 2019	1,459,180	0.000	Y		
LOAD,ASSEMBLE,PACK		2019	GENERAL DYNAMICS AND ALLIANT TECH / MARION, IL AND MESA, AZ	MIPR	ACC-ROCK ISLAND	Mar 2019	Mar 2020	1,162,000	0.000	Y		

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force														Date: February 2018					
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 12							P-1 Line Item Number / Title: 352010 / Cartridges							Aggregated Items Title: (MG62) BBU-35/B IMPULSE CARTRIDGE					

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
(MG62) BBU-35/B IMPULSE CARTRIDGE	A		-	-	-	0.000	2,311,765	5.895	0.000	3,500,000	5.000	0.000	2,052,459	5.008	-	-	-	0.000	2,052,459	5.008
Subtotal: Uncategorized			-	-	-	-	-	5.895	-	-	5.000	-	-	5.008	-	-	-	-	-	5.008
Total			-	-	-	-	-	5.895	-	-	5.000	-	-	5.008	-	-	-	-	-	5.008

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force													Date: February 2018						
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 12						P-1 Line Item Number / Title: 352010 / Cartridges						Aggregated Items Title: (SS-27) BBU-48/B IMPULSE CARTRIDGE							

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
(SS-27) BBU-48/B IMPULSE CARTRIDGE	A		-	-	-	0.000	444,939	4.000	0.000	440,613	4.000	0.000	441,014	4.000	-	-	-	0.000	441,014	4.000
Subtotal: Uncategorized			-	-	-	-	-	4.000	-	-	4.000	-	-	4.000	-	-	-	-	-	4.000
Total			-	-	-	-	-	4.000	-	-	4.000	-	-	4.000	-	-	-	-	-	4.000

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
(SS-27) BBU-48/B IMPULSE CARTRIDGE FY18 funding was moved to Cartridges (Items Less Than \$5 Million).

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force															Date: February 2018				
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 12							P-1 Line Item Number / Title: 352010 / Cartridges								Aggregated Items Title: CARTRIDGES (ITEMS LESS THAN \$5 MILLION)				

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
AMMUNITION CARTRIDGES																				
(A014) CTG, 12 GA SHOTGUN, 7-1/2 PLASTIC	A		-	-	-	-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-
(A017) CTG, 12 GA BUCKSHOT	A		-	-	-	0.000	33,333	0.010	0.000	16,890	0.010	0.000	17,544	0.010	-	-	-	0.000	17,544	0.010
(A062) CTG, 5.56MM BALL M855 LINKED	A		-	-	-	-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-
(A080) CTG, 5.56MM BLANK M200	A		-	-	-	0.000	3,666,666	0.550	-	-	0.000	-	-	-	-	-	-	-	-	-
(A091) CTG, .22 CAL LONG RIFLE	A		-	-	-	0.000	1,718,750	0.275	0.000	812,500	0.195	-	-	-	-	-	-	-	-	-
(A131) CTG, 7.62MM BALL 4-1 LINKED	A		-	-	-	0.000	1,428,571	0.800	0.000	3,389,830	2.000	0.000	3,448,276	2.000	-	-	-	0.000	3,448,276	2.000
(A143) 7.62MM BALL LINKED (M80)	A		-	-	-	-	-	-	0.000	5,454,400	3.000	0.000	5,357,143	3.000	0.000	1,785,714	1.000	0.000	7,142,857	4.000
(A164) CTG, 7.62MM LINKED	A		-	-	-	0.000	1,923,076	1.000	-	-	0.000	0.000	1,851,852	1.000	-	-	-	0.000	1,851,852	1.000
(A246) CTG, .30 CAL BALL BULK	A		-	-	-	-	-	-	0.000	38,461	0.010	-	-	-	-	-	-	-	-	-
(A165) CARTRIDGE 7.62MM M80	A		-	-	-	-	-	-	-	-	-	0.000	1,818,182	1.000	-	-	-	0.000	1,818,182	1.000
(A257) CTG, 7.62MM 9-1 DIM TRACER	A		-	-	-	0.000	471,698	0.250	0.000	363,538	0.200	0.000	363,636	0.200	-	-	-	0.000	363,636	0.200
(A363) 9MM BALL NATO XM882 PISTOL	A		-	-	-	0.000	5,000,000	1.000	0.000	3,750,000	0.750	0.000	5,000,000	1.000	-	-	-	0.000	5,000,000	1.000
(A404) CTG, .38 CAL SP BALL WADCUTTER	A		-	-	-	-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-
(A475) CTG, CAL .45 BALL M1911	A		-	-	-	0.000	538,461	0.350	-	-	0.000	-	-	-	-	-	-	-	-	-
(A482) CTG CAL .45 BALL WADCUTTER	A		-	-	-	0.000	480,769	0.250	-	-	0.000	-	-	-	-	-	-	-	-	-
(A483) CTG CAL .45 BALL M1911 MTCHGRD	A		-	-	-	0.000	197,368	0.075	-	-	0.000	-	-	-	-	-	-	-	-	-
(A552) CTG, .50 CAL BALL SINGLE ROUND, M33	A		-	-	-	0.000	268,292	0.550	-	-	0.000	-	-	-	-	-	-	-	-	-
(A555) CTG, CAL .50 BALL M2 LINKED	A		-	-	-	0.000	1,666,666	3.500	-	-	0.000	0.000	473,934	1.000	-	-	-	0.000	473,934	1.000

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3011F / 01 / 12

P-1 Line Item Number / Title:
352010 / Cartridges

Aggregated Items Title:
CARTRIDGES (ITEMS LESS THAN \$5 MILLION)

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
(A557) CTG, CAL .50 BALL/TRACER/ LINKED M2/M9	A		-	-	-	0.000	1,141,552	2.500	0.000	923,538	2.000	0.000	909,091	2.000	-	-	-	0.000	909,091	2.000
(A598) CTG CAL.50 BLNK CRMPD W/M9 LNK	A		-	-	-	-	-	0.000	0.000	191,387	0.400	-	-	-	-	-	-	-	-	-
(A606) CTG, CAL.50 API MK211 MOD 0	A		-	-	-	0.000	68,933	0.750	-	-	0.000	-	-	-	-	-	-	-	-	-
(A607) CTG, .50 CAL ARMOR PIERCING INCENDIARY	A		-	-	-	0.000	94,696	0.750	0.000	75,835	0.600	0.000	75,949	0.600	-	-	-	0.000	75,949	0.600
(AA02) CTG 5.56MM AP/TR M995/M856 4-1	A		-	-	-	-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-
(AA03) CTG. 7.62 M993 AP	A		-	-	-	-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-
(AA04) CTG. 7.62MM 4 AP M9331/1TR M62 W/LK M13	A		-	-	-	-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-
(AA11) CTG. 7.62 NATO M118 SPEC BALL	A		-	-	-	0.000	746,268	0.500	-	-	0.000	0.000	735,294	0.500	-	-	-	0.000	735,294	0.500
(AA16) 9 MILLIME CARTRIDGE FRANG	A		-	-	-	0.000	9,166,667	2.750	0.000	8,387,096	2.600	-	-	-	-	-	-	-	-	-
(AA51) 12 GA NON-LETHAL PT-CONT	A		-	-	-	0.000	46,511	0.100	0.000	16,129	0.035	0.000	22,727	0.050	-	-	-	0.000	22,727	0.050
(AA52) 12 GA NON-LETHAL CROWD	A		-	-	-	-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-
(AA53) CTG 5.56 SPECIAL MK262 MOD 1	A		-	-	-	0.000	1,271,186	0.750	0.000	834,724	0.500	-	-	-	-	-	-	-	-	-
(AB10) 5.56 RED MARKING CARTRIDGES	A		-	-	-	0.000	1,265,822	1.000	0.000	4,838,709	3.000	0.000	5,238,095	3.300	-	-	-	0.000	5,238,095	3.300
(AB13) 9MM BLUE MARKING CARTRIDGE	A		-	-	-	0.000	3,906,250	2.500	0.000	3,333,333	2.000	0.000	3,770,492	2.300	-	-	-	0.000	3,770,492	2.300
(AB14) 9M RED MARKING CARTRIDGE	A		-	-	-	0.000	5,384,615	3.500	0.000	3,346,552	2.000	0.000	3,770,492	2.300	-	-	-	0.000	3,770,492	2.300
(AB39) 7.62MM SPECIAL BALL, LONG RANGE	A		-	-	-	-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3011F / 01 / 12

P-1 Line Item Number / Title:
352010 / Cartridges

Aggregated Items Title:
CARTRIDGES (ITEMS LESS THAN \$5 MILLION)

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
(AB16) 5.56 BLUE MARKING CARTRIDGE	A		-	-	-	-	-	-	-	-	0.000	2,702,703	2.000	-	-	-	0.000	2,702,703	2.000	
(AB56) 5.56MM M855A1 LINKED LEAD FREE CART	A		-	-	-	0.000	2,777,777	1.000	0.000	2,805,897	1.000	0.000	2,702,703	1.000	-	-	-	0.000	2,702,703	1.000
(AB46) 5.56MM SINGLE ROUND DUMMY	A		-	-	-	-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-
(AB47) 7.62MM DUMMY	A		-	-	-	-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-
(AB48) .50 CAL SINGLE DUMMY CART	A		-	-	-	-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-
(AB72) CTG, 7.62MM SINGLE ROUND BLANK (was A112)	A		-	-	-	0.000	294,117	0.100	-	-	0.000	-	-	-	-	-	-	-	-	-
(B508) 40MM CTG GREEN SMOKE M175	A		-	-	-	-	-	-	-	-	0.000	3,530	0.500	-	-	-	0.000	3,530	0.500	
(B509) 40MM CTG YELLOW SMOKE	A		-	-	-	-	-	-	-	-	0.000	3,562	0.500	-	-	-	0.000	3,562	0.500	
(B519) CARTRIDGE, 40MM PRACTICE M781	A		-	-	-	-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-
(B535) 40MM SWS M583	A		-	-	-	-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-
(B542) 40 MIL CARTRIDGE HEDP	A		-	-	-	0.000	21,901	1.000	0.000	45,399	3.000	0.000	44,001	3.000	0.000	15,899	1.084	0.000	59,900	4.084
(B576) CTG, 40MM PRACTICE, LINKED, HIGH VELOCITY	A		-	-	-	0.000	101,010	2.000	-	-	0.000	0.000	20,738	0.500	-	-	-	0.000	20,738	0.500
AIR FORCE SHOOTING TEAM	A		-	-	-	-	-	0.140	-	-	0.101	-	-	0.087	-	-	-	-	-	0.087
(BA21) 40MM PRACTICE, DAY/ NIGHT LINKED	A		-	-	-	0.000	10,387	0.338	-	-	0.000	-	-	-	-	-	-	-	-	-
(LA51) SIMULATOR, SMALL ARMS FIRE	A		-	-	-	-	-	0.100	-	-	0.000	-	-	-	-	-	-	-	-	-
(LA52) SIMULATOR, SMALL ARMS FIRE	A		-	-	-	-	-	0.100	-	-	0.000	-	-	-	-	-	-	-	-	-
Subtotal: AMMUNITION CARTRIDGES			-	-	-	-	-	28.488	-	-	23.401	-	-	27.847	-	-	2.084	-	-	29.931
IMPULSE CARTRIDGES																				

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force														Date: February 2018					
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 12							P-1 Line Item Number / Title: 352010 / Cartridges							Aggregated Items Title: CARTRIDGES (ITEMS LESS THAN \$5 MILLION)					

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
(3W37) CHAFF, RR-188	A		-	-	-	0.000	1,008,174	3.700	0.000	1,008,174	3.700	0.000	1,007,397	3.500	-	-	-	0.000	1,007,397	3.500
(MG11) CTG, IMPULSE, BBU-36/B	A		-	-	-	-	-	-	-	-	-	0.000	955,414	3.000	-	-	-	0.000	955,414	3.000
(JN31) CU-168 SQUIB	A		-	-	-	0.001	3,606	2.000	0.001	3,606	2.000	0.001	2,647	2.000	-	-	-	0.001	2,647	2.000
(WA83) CCU-136	A		-	-	-	0.000	2,717	0.010	0.000	2,717	0.010	-	-	-	-	-	-	-	-	-
(WB24) CCU-145	A		-	-	-	0.000	37,664	0.200	0.000	37,664	0.200	-	-	-	-	-	-	-	-	-
(M943) MK107 IMPULSE CARTRIDGE	A		-	-	-	0.000	4,329	1.500	0.000	4,329	1.500	0.000	4,230	1.500	-	-	-	0.000	4,230	1.500
(MF60) CTG 25MM TP PGU-23/U	A		-	-	-	0.000	28,968	0.250	0.000	28,968	0.250	-	-	-	-	-	-	-	-	-
(MT40) BBU-46 SQUIB, ELECTRIC	A		-	-	-	-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-
(NY02) CHAFF, RR-196(T-1)AL	A		-	-	-	0.000	74,313	3.000	0.000	74,313	3.000	0.000	72,664	3.000	-	-	-	0.000	72,664	3.000
(SS44) BBU63/B IMPULSE CARTRIDGE	A		-	-	-	0.001	3,702	2.000	0.001	3,702	2.000	0.000	4,040	2.000	-	-	-	0.000	4,040	2.000
(SY16) RR-180 CHAFF CARTRIDGE	A		-	-	-	0.000	264,270	2.500	0.000	264,270	2.500	0.000	253,642	2.500	-	-	-	0.000	253,642	2.500
Subtotal: IMPULSE CARTRIDGES			-	-	-	-	-	15.160	-	-	15.160	-	-	17.500	-	-	-	-	-	17.500
Total			-	-	-	-	-	43.648	-	-	38.561	-	-	45.347	-	-	2.084	-	-	47.431

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:

All Ammunition Cartridges:

Prices are provided by the Single Manager for Conventional Ammunition (SMCA), Department of the Army. Prices shown represent the SMCA efforts to obtain munitions items for the DoD Military Services purchasing the same or similar items. Cost drivers include economic price adjustments, currency rate fluctuations, price of complex or scarce materials and orders from other Military Services (increases/decreases). FY14 price changes are due to new contracts with Lake City Army Ammo Plant (LCAAP) and the planned procurements of other customers.

The Navy procures Frangible rounds such as DODIC AA16, 9MM for the Air Force and prices provided based on vendor estimates and AF and Navy combined planned procurements.

All Chaff and Impulse Cartridges:

The Navy procures Chaff and some Impulse Cartridge (all CCU and MK cartridges) items based on planned Air Force and Navy requirements.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 13: Bombs	P-1 Line Item Number / Title: 353010 / Practice Bombs
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	77.686	28.509	20.876	0.000	20.876	29.313	29.858	30.399	30.946	-	247.587
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	77.686	28.509	20.876	0.000	20.876	29.313	29.858	30.399	30.946	-	247.587
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	77.686	28.509	20.876	0.000	20.876	29.313	29.858	30.399	30.946	-	247.587

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The following Weapon System Cost Elements are represented in this P-1 line:

- MK-84 Inerts: A 2,000-pound, non-explosive training shape used to provide combat air forces with aircrew weapons delivery training. The MK-84 Inert simulates the drop trajectory of a live MK-84. This item is procured through the Single Manager for Conventional Ammunition (SMCA)/Army.
- BDU-50C/B: A 500-pound thick-wall cast ductile iron, non-explosive training shape used to provide combat air forces with aircrew weapons delivery training. The BDU-50 simulates the drop trajectory of a live MK-82. This item is procured through the Single Manager for Conventional Ammunition (SMCA)/Army.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Funding for this exhibit contained in PE 0207599F.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 13: Bombs

P-1 Line Item Number / Title:
353010 / Practice Bombs

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	(ED12) BDU-56A/B, 2000LB PRAC BOMB	P-5a	A		- / -	- / 2.001	- / 2.000	- / -	- / -	- / -
P-5	(ED96) BDU-50 2000LB CDI PRAC BOMB	P-5a	A		- / -	- / 75.685	- / 26.509	- / 20.876	- / -	- / 20.876
P-40	Total Gross/Weapon System Cost				- / -	- / 77.686	- / 28.509	- / 20.876	- / 0.000	- / 20.876

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY2019 funding purchases MK-84 Inerts and BDU-50 C/B pound non-explosive training bombs to provide combat air forces with weapons build-up and aircrew weapons delivery training. These practice bombs simulate drop trajectory and weight of explosive-filled weapons.

The Air Force procures munitions to maintain appropriate quantities in the War Reserve Materiel (WRM) Munitions and test and training stockpiles. Active, Guard and Reserve components draw from the WRM stockpiles as required and receive test and training allocations annually based on current-year requirements.

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13		P-1 Line Item Number / Title: 353010 / Practice Bombs
		Item Number / Title [DODIC]: (ED12) BDU-56A/B, 2000LB PRAC BOMB

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	2.001	2.000	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	2.001	2.000	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	2.001	2.000	-	-	-

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Hardware End Item Cost																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK (LAP) ^(†)	-	-	-	0.008	239	1.872	0.007	255	1.833	-	-	-	-	-	-	-	-	-
LUG SUSP ACFT ORD MK3-0	-	-	-	0.000	482	0.028	0.000	515	0.033	-	-	-	-	-	-	-	-	-
PALLET MK79-1	-	-	-	0.001	120	0.095	0.001	128	0.124	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	1.994	-	-	1.990	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - Hardware End Item Cost</i>	-	-	-	-	-	1.994	-	-	1.990	-	-	-	-	-	-	-	-	-
Support - Support End Item Cost																		
PRODUCTION ENGINEERING	-	-	-	-	-	0.000	-	-	0.000	-	-	-	-	-	-	-	-	-
QUALITY ASSURANCE	-	-	-	-	-	0.007	-	-	0.010	-	-	-	-	-	-	-	-	-
FIRST ARTICLE TEST	-	-	-	-	-	0.000	-	-	0.000	-	-	-	-	-	-	-	-	-
NAVY ENGINEERING SUPPORT	-	-	-	-	-	0.000	-	-	0.000	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	0.007	-	-	0.010	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	-	-	-	2.001	-	-	2.000	-	-	-	-	-	-	-	-	-

Remarks:

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13	P-1 Line Item Number / Title: 353010 / Practice Bombs	Item Number / Title [DODIC]: (ED12) BDU-56A/B, 2000LB PRAC BOMB

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Prices are provided by the Single Manager for Conventional Ammunition (SMCA), Department of the Army. Prices shown represent the SMCA efforts to obtain hardware, containers, pallets, straps, non-explosive fill material, lugs, etc. for the DoD Military Services purchasing the same or similar items, and to load, assemble and pack the Air Force order.

The load, assemble, pack (LAP) quantity is the number of completed rounds to be delivered into the AF inventory. The ammunition production plant provides the LAP price to SMCA, which includes cost to receive bomb bodies and for non-explosive fill materials and packing materials used to produce an inventory-worthy round.

Cost drivers may include economic price adjustments, currency rate fluctuations, price of complex or scarce materials and orders from other Military Services (increases/decreases).

(t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force								Date: February 2018				
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13			P-1 Line Item Number / Title: 353010 / Practice Bombs					Item Number / Title [DODIC]: (ED12) BDU-56A/B, 2000LB PRAC BOMB				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ M)	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP)		2017	ALLIED MECHANICAL WISCONSIN / APPLETON, WISCONSIN	MIPR	ACC-ROCK ISLAND	Mar 2017	Mar 2018	239	0.008	Y		Jan 2017
LOAD, ASSEMBLE, PACK (LAP)		2018	ALLIED MECHANICAL WISCONSIN / APPLETON, WISCONSIN	MIPR	ACC-ROCK ISLAND	Mar 2018	Mar 2019	255	0.007	Y		Jan 2018

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13	P-1 Line Item Number / Title: 353010 / Practice Bombs	Item Number / Title [DODIC]: (ED96) BDU-50 2000LB CDI PRAC BOMB

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	75.685	26.509	20.876	-	20.876
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	75.685	26.509	20.876	-	20.876
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	75.685	26.509	20.876	-	20.876

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Hardware End Item Cost																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK (LAP) ^(†)	-	-	-	0.003	23,915	72.490	0.002	12,350	24.730	0.001	13,711	18.944	-	-	-	0.001	13,711	18.944
LUG SUSP ACFT ORD MS3314	-	-	-	0.000	61,694	1.895	0.000	24,700	0.712	0.000	27,640	0.797	-	-	-	0.000	27,640	0.797
PALLET INSPECTION, MHU-149/E	-	-	-	0.000	1,372	0.189	0.000	2,470	0.466	0.000	2,764	0.663	-	-	-	0.000	2,764	0.663
PALLET MHU-149/E	-	-	-	0.000	3,157	0.758	0.000	2,470	0.593	0.000	2,764	0.439	-	-	-	0.000	2,764	0.439
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	75.332	-	-	26.501	-	-	20.844	-	-	-	-	-	20.844
<i>Subtotal: Hardware - Hardware End Item Cost</i>	-	-	-	-	-	75.332	-	-	26.501	-	-	20.844	-	-	-	-	-	20.844
Support - Support End Item Cost																		
QUALITY ASSURANCE	-	-	-	-	-	0.004	-	-	0.008	-	-	0.003	-	-	-	-	-	0.003
FIRST ARTICLE TEST	-	-	-	-	-	0.137	-	-	0.000	-	-	0.029	-	-	-	-	-	0.029
NAVY ENGINEERING SUPPORT	-	-	-	-	-	0.212	-	-	0.000	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	0.353	-	-	0.008	-	-	0.032	-	-	-	-	-	0.032
Gross/Weapon System Cost	-	-	-	-	-	75.685	-	-	26.509	-	-	20.876	-	-	-	-	-	20.876

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13	P-1 Line Item Number / Title: 353010 / Practice Bombs	Item Number / Title [DODIC]: (ED96) BDU-50 2000LB CDI PRAC BOMB

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Remarks:
Prices are provided by the Single Manager for Conventional Ammunition (SMCA), Department of the Army. Prices shown represent the SMCA efforts to obtain hardware, containers, pallets, non-explosive fill material, lugs, etc. for the DoD Military Services purchasing the same or similar items, and to load, assemble and pack the Air Force order. Cost drivers may include economic price adjustments, currency rate fluctuations, price of complex or scarce materials and orders from other Military Services (increases/decreases).

The load, assemble, pack (LAP) quantity is the number of completed rounds to be delivered into the AF inventory. The ammunition production plant provides the LAP price to SMCA, which includes cost to receive bomb bodies and for miscellaneous explosives, fillers and packing materials and bomb lugs used to produce an inventory-worthy round.

The BDU-50C/B Cast Ductile Iron (CDI) Practice Bomb contains no explosive fill materials, however, the SMCA generically terms the process of assembling the various components (bomb body, lugs, etc),and "package/palletize" the end item as "Load, Assemble and Pack (LAP), applicable to both general purpose and practice bombs.

(t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force							Date: February 2018				
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13			P-1 Line Item Number / Title: 353010 / Practice Bombs				Item Number / Title [DODIC]: (ED96) BDU-50 2000LB CDI PRAC BOMB				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP)		2017	ALLIED MECHANICAL WISCONSIN / APPLETON, WISCONSIN	MIPR	ACC-ROCK ISLAND	Apr 2017	Mar 2018	23,915	0.003	Y		
LOAD, ASSEMBLE, PACK (LAP)		2018	ALLIED MECHANICAL WISCONSIN / APPLETON, WISCONSIN	MIPR	ACC-ROCK ISLAND	Jan 2018	Mar 2018	12,350	0.002	Y		
LOAD, ASSEMBLE, PACK (LAP)		2019	ALLIED MECHANICAL WISCONSIN / APPLETON, WISCONSIN	MIPR	ACC-ROCK ISLAND	Jan 2019	Jan 2020	13,711	0.001	Y		

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 13: Bombs	P-1 Line Item Number / Title: 353020 / General Purpose Bombs
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	569.482	329.501	259.308	551.862	811.170	342.632	454.175	506.673	515.796	-	3,529.429
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	569.482	329.501	259.308	551.862	811.170	342.632	454.175	506.673	515.796	-	3,529.429
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	569.482	329.501	259.308	551.862	811.170	342.632	454.175	506.673	515.796	-	3,529.429

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The following Weapon System Cost Elements are represented in this P-1 line:

-MXU-651 B/B (EC31/EC28) is an airfoil group consisting of an aft wing assembly, forward canards and attaching hardware needed to assemble a GBU-10 Laser Guided Bomb, (BLU-109 2000lb Hard Target Penetrator Bomb or MK84 2000lb class bomb). The system has folding wings which open upon release for increased maneuverability. This item is procured by Munitions Sustainment Division at Hill AFB.

-MXU-650 Fin Assembly kit (EC32) consists of a tail fin, forward canards and attachment hardware needed to assemble the GBU-12 (MK-82 Warhead, 500lb class) Laser Guided Bomb (LGB). This Fin assembly kit, coupled with a Computer Control Group (ED58) complete the GBU-12 weapons build. These weapons are primarily used for precision bombing against non-hardened targets. This item is procured by Munitions Sustainment Division at Hill AFB.

-MAU-209/MAU-169 (ED58) GBU-10/12 Computer Control Group is a laser homing guidance unit used on the GBU-10 and GBU-12 Laser Guided Bombs, (GBU-10, MK-84 Warhead, 2000lb class or GBU-12, MK-82 Warhead, 500lb class). The system has folding wings which open upon release for maneuverability and increased aircraft payload. This item is procured by Hill AFB. Laser Guided Bombs are essential to meeting training, operational and inventory objective requirements worldwide for precision bombing against hardened and non-hardened targets. Yearly procurements ensure the necessary stock on hand to meet these requirements. Paveway II telemetry (TM) kits are radio monitored modules installed in the GBU-10, 12 and 16 weapon systems that monitor and track data during flight. They provide essential data for issues such as flight failures and weapon accuracy as well as data for the long term sustainment of the weapon system.

-GBU-49; The Enhanced Paveway II kit for the GBU-49 consists of a MAU-210 G/B Enhanced Computer Control Group (ECCG) and an MXU-650 M/B Air Foil Group (AFG). The ECCG and AFG provide GPS-aided INS and laser terminal guidance capabilities to enable the GBU-49 to engage fixed, re-locatable, and moving targets.

-BLU-117 (ED09) is a 2,000-pound class general purpose bomb. The bomb produces blast and fragmentation effects and can be used as either an unguided high or low drag weapon. When used with a guidance kit, it can be employed as a precision guided bomb. The warhead is used on the GBU-10/12 (PAVEWAY) and Joint Direct Attack Munition (GBU-31) weapon systems. The BLU-117 can also be fuzed with proximity, instantaneous, or delayed fuzes to provide a variety of military effects. This item is procured through the Army Single Manager for Conventional Ammunition (SMCA).

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 13: Bombs		P-1 Line Item Number / Title: 353020 / General Purpose Bombs
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>-BLU-111 (ED15) is a General Purpose Bomb, identical to the MK-82 (500 lb bomb), except for type of explosive filler (PBXN-109 vs Tritonal) and vented aft closure. It has a relatively thin case with a slender body designed for improved ballistics. Employed as general purpose bombs delivered in high and low drag modes with ground burst, delayed, or air burst fuzes and as precision guided munitions (GBU-12,-22,-38,or -54) and aerial mines depending on the fin/airfoil group and fuzing. This item is procured through the Army Single Manager for Conventional Ammunition (SMCA).</p> <p>-BLU-109 (ED49) warhead is a 2000-pound hard target penetrator bomb designed with Insensitive Munitions (IM) technology. It is a penetrator weapon used against bunkers, aircraft shelters, and reinforced concrete structures. The warhead is used on the GBU-10, 24, and 27 as well as Joint Direct Attack Munition (JDAM) GBU-31V3 weapon systems. This item is procured through the Army Single Manager for Conventional Ammunition (SMCA).</p> <p>-BLU-137/B (EE59) Advanced 2,000-pound Penetrator (A2K) is a weapon used against bunkers, aircraft shelters, and reinforced concrete structures and is compatible with the JDAM guidance tail kit. The BLU-137/B will eventually begin to replace the BLU-109 C/B. The BLU-137/B will be initially procured through AFLCMC/EBD at Eglin AFB in FY18 and will transition to Hill (AFLCMC/EBH) for future procurement.</p> <p>-BLU-129/B (ED78) Composite Case Warhead - Carbon fiber composite case for high near-field lethality to deliver 3x reduction in collateral damage. The program is dependent on field stated quantity requirements based on current tactical operational needs until a normalized inventory objective is established.</p> <p>-Next Generation Area Attack Weapons (NGAAWs) are a family of unitary area attack weapon capabilities to meet the DoD policy on cluster munitions. They consist of BLU-134/B and BLU-136/B warheads with a height of burst sensor. BLU-134/B, Improved Lethality Warhead (ILW), Next Generation Area Attack Weapon Increment I, is an area attack employed, near-term solution, 500 lb warhead for improved anti-personnel anti-material (APAM) target lethality which meets DoD policy on cluster munitions. This item will be procured through AFLCMC/EBDW at Eglin AFB for LRIP and FRP 1. BLU-136/B, Next Generation Area Attack Weapon Increment II, is a 2,000 lb high fragmentation area attack warhead to augment the BLU-134/B for significant improvement against the APAM target lethality which meets DoD policy on cluster munitions.</p> <p>-Items Less Than Five Million Dollars: All items have an annual procurement of less than \$5,000,000 and are Code A.</p> <p>Portion of FY19-FY23 funding will be used for facilitization efforts. This will enhance production line capacity required to replenish inventory.</p> <p>In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.</p> <p>Funding for this exhibit contained in PEs: 0208030F, 0207599F</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 13: Bombs		P-1 Line Item Number / Title: 353020 / General Purpose Bombs
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	(EC32) MXU-650 GCG, FIN ASSEMBLY				- / -	- / 20.640	- / 18.000	- / 18.000	- / 3.300	- / 21.300
P-5	(ED09) BLU-117, 2000LB GP BOMB	P-5a	A		- / -	- / 367.461	- / 32.603	- / -	- / -	- / -
P-5	(ED15) BLU-111A/B 500LB GP BOMB		A		- / -	- / 5.000	- / 5.000	- / 5.000	- / -	- / 5.000
P-5	(ED49) BLU-109 2000 LB HARD TARGET BOMB	P-5a	A		- / -	- / 97.000	- / 70.000	- / 45.483	- / 541.862	- / 587.345
P-40a	(ED58) MAU-209C/B CCG				- / -	- / 45.281	- / 25.000	- / 35.000	- / 6.700	- / 41.700
P-40a	(ED78) BLU-129/B 500LB BOMB				- / -	- / -	- / 8.125	- / 8.125	- / -	- / 8.125
P-40a	BLU-134/B CDI 500LB				- / -	- / -	- / 81.573	- / 84.996	- / -	- / 84.996
P-5	(EE59) BLU-137		A		- / -	- / -	- / -	1,000 / 45.500	- / -	1,000 / 45.500
P-40a	GBU-49				- / -	- / 0.000	- / 72.000	- / -	- / -	- / -
P-40a	GENERAL PURPOSE BOMBS (ITEMS LESS THAN \$5 MILLION)				- / -	- / 17.100	- / 17.200	- / 17.200	- / -	- / 17.200
P-40	Total Gross/Weapon System Cost				- / -	- / 569.482	- / 329.501	- / 259.308	- / 551.862	- / 811.170

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.
 Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY2019 purchases 500, 1,000 and 2,000 pound conventional general purpose bombs, and guidance and control kits to provide precision bombing capabilities; additionally, equipment or support required to enhance production line capacity as required by inventory replenishment. These weapons are used to defeat non-hard, hardened and deeply buried targets, bunkers, aircraft shelters, reinforced concrete structures and various armored targets. Built up with assorted componentry, the bombs can also be employed as Joint Direct Attack Munitions or Laser Guided Bombs.

The Air Force procures munitions to maintain appropriate quantities in the War Reserve Materiel (WRM) Munitions and test and training stockpiles. Active, Guard and Reserve components draw from the WRM stockpiles as required and receive test and training allocations annually based on current-year requirements.

Procurement/Replenishment is required to maintain readiness objectives and worldwide war reserve materiel (WRM) stockpiles to support requirements for penetrator bombs, low collateral damage bombs, and multiple precision guided bomb configurations as determined by the non-nuclear consumables annual analysis (NCAA), to execute DoD approved combat plans and training requirements.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13 **P-1 Line Item Number / Title:** 353020 / General Purpose Bombs **Aggregated Items Title:** (EC32) MXU-650 GCG, FIN ASSEMBLY

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
MXU-650 FIN ASSEMBLY - EC32	A		-	-	-	0.004	4,832	20.640	0.004	4,500	18.000	0.004	4,726	18.000	0.004	866	3.300	0.004	5,592	21.300
Subtotal: Uncategorized			-	-	-	-	-	20.640	-	-	18.000	-	-	18.000	-	-	3.300	-	-	21.300
Total			-	-	-	-	-	20.640	-	-	18.000	-	-	18.000	-	-	3.300	-	-	21.300

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:

Prices shown reflect the average unit cost of split-award contracts plus inflation. Due to the competitive nature of the currently qualified vendors, estimated unit cost information from the vendors is not available for planning purposes.

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13	P-1 Line Item Number / Title: 353020 / General Purpose Bombs	Item Number / Title [DODIC]: (ED09) BLU-117, 2000LB GP BOMB

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	367.461	32.603	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	367.461	32.603	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	367.461	32.603	-	-	-

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Hardware End Item Cost																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK (LAP) ^(†)	-	-	-	0.005	14,138	77.213	0.005	1,302	6.638	-	-	-	-	-	-	-	-	-
BOMB BODY 2000LB MK84 MOD 10 IM	-	-	-	0.006	14,138	89.510	0.005	1,302	7.031	-	-	-	-	-	-	-	-	-
LUG SUSP ACFT ORD MK3-0	-	-	-	0.000	28,276	1.620	0.000	2,604	0.166	-	-	-	-	-	-	-	-	-
CXM-AF7	-	-	-	0.000	10,223,680	193.125	0.000	895,776	18.014	-	-	-	-	-	-	-	-	-
PALLET MK79-1	-	-	-	0.001	7,069	5.571	0.001	651	0.630	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	367.039	-	-	32.479	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - Hardware End Item Cost</i>	-	-	-	-	-	367.039	-	-	32.479	-	-	-	-	-	-	-	-	-
Support - Support End Item Cost																		
PRODUCTION ENGINEERING	-	-	-	-	-	0.379	-	-	0.106	-	-	-	-	-	-	-	-	-
QUALITY ASSURANCE	-	-	-	-	-	0.004	-	-	0.003	-	-	-	-	-	-	-	-	-
FIRST ARTICLE TEST	-	-	-	-	-	0.039	-	-	0.015	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	0.422	-	-	0.124	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	-	-	-	367.461	-	-	32.603	-	-	-	-	-	-	-	-	-

Remarks:

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13	P-1 Line Item Number / Title: 353020 / General Purpose Bombs	Item Number / Title [DODIC]: (ED09) BLU-117, 2000LB GP BOMB
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:
<p>This cost analysis represents the Single Manager for Conventional Ammunition (SMCA) efforts to obtain hardware, containers, pallets, straps, explosive material, lugs, etc. for the DoD Military Services purchasing the same or similar items, and to load, assemble and pack (LAP) the Air Force order.</p> <p>The load, assemble, pack (LAP) quantity is the number of completed rounds to be delivered into the AF inventory. The ammunition production plant provides the LAP price to SMCA, which includes cost to receive bomb bodies and for miscellaneous explosives, fillers and packing materials used to produce an inventory-worthy round.</p> <p>Bomb Body price, provided by the manufacturer to SMCA, is the unit price of an empty bomb body/casing. Developing the cost for a completed round, SMCA applies a Production Loss Factor (PLF) to estimate an additional quantity of bomb bodies/casings to mitigate risks during production of complete rounds. Risks may include defective bomb body or need to replace the body after filled with a nonconforming batch of explosives.</p> <p>Primary cost drivers include the total military customer orders (increases/decreases), complex or scarce materials, economic price adjustments, currency rate fluctuations.</p> <p>(†) indicates the presence of a P-5a</p>		

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13	P-1 Line Item Number / Title: 353020 / General Purpose Bombs	Item Number / Title [DODIC]: (ED09) BLU-117, 2000LB GP BOMB
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP)		2017	MCALESTER ARMY AMMUNITION PLANT / MCALESTER, OK	MIPR	ACC-ROCK ISLAND	Jun 2017	Jul 2018	14,138	0.005	Y		
LOAD, ASSEMBLE, PACK (LAP)		2018	MCALESTER ARMY AMMUNITION PLANT / MCALESTER, OK	MIPR	ACC-ROCK ISLAND	Jun 2018	Jul 2018	1,302	0.005	Y		

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13	P-1 Line Item Number / Title: 353020 / General Purpose Bombs	Item Number / Title [DODIC]: (ED15) BLU-111A/B 500LB GP BOMB

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	5.000	5.000	5.000	-	5.000
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	5.000	5.000	5.000	-	5.000
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	5.000	5.000	5.000	-	5.000

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Cost Cost																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK (LAP)	-	-	-	0.002	815	1.283	0.002	787	1.234	0.002	904	1.831	-	-	-	0.002	904	1.831
BOMB BODY 500 LB MK82 MOD 6 IM	-	-	-	0.002	815	1.865	0.002	787	1.954	0.001	904	1.342	-	-	-	0.001	904	1.342
LUG SUSP ACFT ORD MS3314	-	-	-	0.000	1,631	0.050	0.000	1,574	0.054	0.000	1,808	0.052	-	-	-	0.000	1,808	0.052
CXM-7	-	-	-	0.000	106,022	1.740	0.000	102,310	1.566	0.000	117,520	1.614	-	-	-	0.000	117,520	1.614
PALLET INSPECTION, MHU-122E	-	-	-	0.000	136	0.026	0.000	131	0.025	0.000	151	0.028	-	-	-	0.000	151	0.028
PALLET MHU-122/E	-	-	-	-	-	-	0.000	131	0.031	0.000	151	0.036	-	-	-	0.000	151	0.036
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	4.964	-	-	4.864	-	-	4.903	-	-	-	-	-	4.903
<i>Subtotal: Hardware - Cost Cost</i>	-	-	-	-	-	4.964	-	-	4.864	-	-	4.903	-	-	-	-	-	4.903
Support - Support End Item Cost																		
PRODUCTION ENGINEERING	-	-	-	-	-	0.022	-	-	0.069	-	-	0.080	-	-	-	-	-	0.080
QUALITY ASSURANCE	-	-	-	-	-	0.001	-	-	0.004	-	-	0.010	-	-	-	-	-	0.010
FIRST ARTICLE TEST	-	-	-	-	-	0.013	-	-	0.047	-	-	0.007	-	-	-	-	-	0.007
ACCEPTANCE TESTING	-	-	-	-	-	-	-	-	0.016	-	-	0.000	-	-	-	-	-	0.000
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	0.036	-	-	0.136	-	-	0.097	-	-	-	-	-	0.097

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Exhibit P-5, Cost Analysis: PB 2019 Air Force												Date: February 2018					
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13						P-1 Line Item Number / Title: 353020 / General Purpose Bombs						Item Number / Title [DODIC]: (ED15) BLU-111A/B 500LB GP BOMB					
ID Code (A=Service Ready, B=Not Service Ready) : A												MDAP/MAIS Code:					

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Gross/Weapon System Cost	-	-	-	-	-	5.000	-	-	5.000	-	-	5.000	-	-	-	-	-	5.000

Remarks:

This cost analysis represents the Single Manager for Conventional Ammunition (SMCA) efforts to obtain hardware, containers, pallets, straps, explosive material, lugs, etc. for the DoD Military Services purchasing the same or similar items, and to load, assemble and pack (LAP) the Air Force order.

The load, assemble, pack (LAP) quantity is the number of completed rounds to be delivered into the AF inventory. The ammunition production plant provides the LAP price to SMCA, which includes cost to receive bomb bodies and for miscellaneous explosives, fillers and packing materials used to produce an inventory-worthy round.

Bomb Body price, provided by the manufacturer to SMCA, is the unit price of an empty bomb body/casing. Developing the cost for a completed round, SMCA applies a Production Loss Factor (PLF) to estimate an additional quantity of bomb bodies/casings to mitigate risks during production of complete rounds. Risks may include defective bomb body or need to replace the body after filled with a nonconforming batch of explosives.

Primary cost drivers include the total military customer orders (increases/decreases), complex or scarce materials, economic price adjustments, currency rate fluctuations.

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13		P-1 Line Item Number / Title: 353020 / General Purpose Bombs
		Item Number / Title [DODIC]: (ED49) BLU-109 2000 LB HARD TARGET BOMB

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	97.000	70.000	45.483	541.862	587.345
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	97.000	70.000	45.483	541.862	587.345
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	97.000	70.000	45.483	541.862	587.345

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Hardware End Item Cost																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK ^(†)	-	-	-	0.011	2,870	30.417	0.008	2,045	16.478	0.008	1,389	10.973	-	-	-	0.008	1,389	10.973
BOMB BODY, 2000LB BLU-109/B	-	-	-	0.018	2,870	51.657	0.021	2,045	42.415	0.020	1,389	28.257	-	-	-	0.020	1,389	28.257
CONTAINER, CNU-417/E	-	-	-	0.002	1,435	3.495	0.002	1,023	2.231	0.002	695	1.472	-	-	-	0.002	695	1.472
CXM-AF-5	-	-	-	0.000	487,900	11.163	0.000	347,650	8.476	0.000	236,130	4.496	-	-	-	0.000	236,130	4.496
BLU-109/B Tritonal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	541.862	-	-	541.862
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	96.732	-	-	69.600	-	-	45.197	-	-	541.862	-	-	587.059
<i>Subtotal: Hardware - Hardware End Item Cost</i>	-	-	-	-	-	96.732	-	-	69.600	-	-	45.197	-	-	541.862	-	-	587.059
Support - Support End Item Cost																		
PRODUCTION ENGINEERING	-	-	-	-	-	0.127	-	-	0.264	-	-	0.178	-	-	-	-	-	0.178
QUALITY ASSURANCE	-	-	-	-	-	0.029	-	-	0.026	-	-	0.020	-	-	-	-	-	0.020
FIRST ARTICLE TEST	-	-	-	-	-	0.112	-	-	0.110	-	-	0.088	-	-	-	-	-	0.088
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	0.268	-	-	0.400	-	-	0.286	-	-	-	-	-	0.286
Gross/Weapon System Cost	-	-	-	-	-	97.000	-	-	70.000	-	-	45.483	-	-	541.862	-	-	587.345

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13	P-1 Line Item Number / Title: 353020 / General Purpose Bombs	Item Number / Title [DODIC]: (ED49) BLU-109 2000 LB HARD TARGET BOMB
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:
<p>Remarks: This cost analysis represents the Single Manager for Conventional Ammunition (SMCA) efforts to obtain hardware, containers, pallets, straps, explosive material, lugs, etc. for the DoD Military Services purchasing the same or similar items, and to load, assemble and pack (LAP) the Air Force order.</p> <p>The load, assemble, pack (LAP) quantity is the number of completed rounds to be delivered into the AF inventory. The ammunition production plant provides the LAP price to SMCA, which includes cost to receive bomb bodies and for miscellaneous explosives, fillers and packing materials used to produce an inventory-worthy round.</p> <p>Bomb Body price, provided by the manufacturer to SMCA, is the unit price of an empty bomb body/casing. Developing the cost for a completed round, SMCA applies a Production Loss Factor (PLF) to estimate an additional quantity of bomb bodies/casings to mitigate risks during production of complete rounds. Risks may include defective bomb body or need to replace the body after filled with a nonconforming batch of explosives.</p> <p>Primary cost drivers include the total military customer orders (increases/decreases), complex or scarce materials, economic price adjustments, currency rate fluctuations.</p> <p>The BLU-137/B Advanced 2,000-pound Penetrator (A2K) will eventually begin to replace the BLU-109 C/B. The BLU-137/B will be initially procured through AFLCMC/EBD at Eglin AFB in FY18 and will transition to Hill (AFLCMC/EBH) for future procurement.</p> <p>(t) indicates the presence of a P-5a</p>		

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force							Date: February 2018				
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13			P-1 Line Item Number / Title: 353020 / General Purpose Bombs				Item Number / Title [DODIC]: (ED49) BLU-109 2000 LB HARD TARGET BOMB				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ M)	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK		2017	MCALESTER ARMY AMMUNITION PLANT / MCALESTER, OK	MIPR	ACC-ROCK ISLAND	Jun 2017	Jul 2018	2,870	0.011	Y		
LOAD, ASSEMBLE, PACK		2018	MCALESTER ARMY AMMUNITION PLANT / MCALESTER, OK	MIPR	ACC-ROCK ISLAND	Jun 2018	Jul 2019	2,045	0.008	Y		
LOAD, ASSEMBLE, PACK		2019	MCALESTER ARMY AMMUNITION PLANT / MCALESTER, OK	MIPR	ACC-ROCK ISLAND	Jun 2019	Jun 2020	1,389	0.008	Y		

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13	P-1 Line Item Number / Title: 353020 / General Purpose Bombs	Aggregated Items Title: (ED58) MAU-209C/B CCG
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
MAU-209C/B - ED58	A		-	-	-	0.005	8,446	45.281	0.007	3,571	25.000	0.008	4,520	35.000	0.008	865	6.700	0.008	5,385	41.700
Subtotal: Uncategorized			-	-	-	-	-	45.281	-	-	25.000	-	-	35.000	-	-	6.700	-	-	41.700
Total			-	-	-	-	-	45.281	-	-	25.000	-	-	35.000	-	-	6.700	-	-	41.700

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:

Prices shown reflect the average unit cost of split-award contracts plus inflation. Due to the competitive nature of the currently qualified vendors, estimated unit costs are not available for planning purposes.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13	P-1 Line Item Number / Title: 353020 / General Purpose Bombs	Aggregated Items Title: (ED78) BLU-129/B 500LB BOMB
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
BLU-129/B 500LB BOMB	A		-	-	-	-	-	-	0.116	70	8.125	0.116	70	8.125	-	-	-	0.116	70	8.125
Subtotal: Uncategorized			-	-	-	-	-	-	-	-	8.125	-	-	8.125	-	-	-	-	-	8.125
Total			-	-	-	-	-	-	-	-	8.125	-	-	8.125	-	-	-	-	-	8.125

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
BLU-129/B Composite Case Warhead - carbon fiber composite case for high near-field lethality to deliver 3x reduction in collateral damage.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13	P-1 Line Item Number / Title: 353020 / General Purpose Bombs	Aggregated Items Title: BLU-134/B CDI 500LB
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
BLU-134/B, CDI 500 lb	A		-	-	-	-	-	-	0.010	8,225	81.573	0.010	8,492	84.996	-	-	-	0.010	8,492	84.996
Subtotal: Uncategorized			-	-	-	-	-	-	-	-	81.573	-	-	84.996	-	-	-	-	-	84.996
Total			-	-	-	-	-	-	-	-	81.573	-	-	84.996	-	-	-	-	-	84.996

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:

Next Generation Area Attack Weapons (NGAAWs) are a family of unitary area attack weapon capabilities to meet the DoD policy on cluster munitions. They consist of BLU-134/B and BLU-136/B warheads with a cockpit height of burst sensor.

BLU-134/B, Improved Lethality Warhead (ILW), NGAAW Increment I is an area attack employed, near-term solution, 500 lb warhead for improved anti-personnel anti-material (APAM) target lethality which meets DoD policy on cluster munitions.

BLU-136/B, NGAAW Increment II, is a 2,000 lb area attack warhead to augment the BLU-134/B for significant improvement against the APAM target lethality which meets DoD policy on cluster munitions

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13	P-1 Line Item Number / Title: 353020 / General Purpose Bombs	Item Number / Title [DODIC]: (EE59) BLU-137

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	-	-	-	1,000	-	1,000
Gross/Weapon System Cost (\$ in Millions)	-	-	-	45.500	-	45.500
Less PY Advance Procurement (\$ in Millions)	-	-	-	0.000	-	0.000
Net Procurement (P-1) (\$ in Millions)	-	-	-	45.500	-	45.500
Plus CY Advance Procurement (\$ in Millions)	-	-	-	0.000	-	0.000
Total Obligation Authority (\$ in Millions)	-	-	-	45.500	-	45.500

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	0.000	0.000	0.000
Gross/Weapon System Unit Cost (\$ in Millions)	-	-	-	0.046	-	0.046

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - (EE59) BLU-137 Cost																		
Recurring Cost																		
Load Assemble Pack (LAP)	-	-	-	-	-	-	-	-	-	0.019	1,000	18.520	-	-	-	0.019	1,000	18.520
BLU-137/B Warhead Case and Assembly	-	-	-	-	-	-	-	-	-	0.026	1,000	25.588	-	-	-	0.026	1,000	25.588
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	<i>44.108</i>	-	-	-	-	-	<i>44.108</i>
<i>Subtotal: Hardware - (EE59) BLU-137 Cost</i>	-	-	-	-	-	-	-	-	-	-	-	<i>44.108</i>	-	-	-	-	-	<i>44.108</i>
Support - (EE59) BLU-137 Cost																		
Production Engineering	-	-	-	-	-	-	-	-	-	-	-	1.190	-	-	-	-	-	1.190
First Article Acceptance Test	-	-	-	-	-	-	-	-	-	-	-	0.100	-	-	-	-	-	0.100
Quality Assurance	-	-	-	-	-	-	-	-	-	-	-	0.102	-	-	-	-	-	0.102
<i>Subtotal: Support - (EE59) BLU-137 Cost</i>	-	-	-	-	-	-	-	-	-	-	-	<i>1.392</i>	-	-	-	-	-	<i>1.392</i>
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	-	0.046	1,000	45.500	-	-	-	0.046	1,000	45.500

Remarks:

The BLU-137/B Advanced 2,000-pound Penetrator (A2K) is a weapon used against bunkers, aircraft shelters, and reinforced concrete structures and is compatible with the JDAM guidance tail kit. The BLU-137/B will eventually begin to replace the BLU-109 C/B. The BLU-137/B will be initially procured through AFLCMC/EBD at Eglin AFB in FY18 and will transition to Hill (AFLCMC/EBH) for future procurement.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13	P-1 Line Item Number / Title: 353020 / General Purpose Bombs	Aggregated Items Title: GBU-49
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
GBU-49	A		-	-	-	-	-	0.000	-	-	72.000	-	-	-	-	-	-	-	-	
Subtotal: Uncategorized			-	-	-	-	-	0.000	-	-	72.000	-	-	-	-	-	-	-	-	
Total			-	-	-	-	-	0.000	-	-	72.000	-	-	-	-	-	-	-	-	

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:

Procurement of 1,200 guidance kits (notional inventory requirement), necessary support equipment, and qualification testing.

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force															Date: February 2018				
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13							P-1 Line Item Number / Title: 353020 / General Purpose Bombs							Aggregated Items Title: GENERAL PURPOSE BOMBS (ITEMS LESS THAN \$5 MILLION)					

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
MXU-651 AFG, GBU-10 (EC31)	A		-	-	-	0.009	200	1.700	0.009	211	1.800	-	-	1.800	-	-	-	-	-	1.800
BOMB FUZE PROTECTION ASSEMBLY (ED67)	A		-	-	-	0.000	4,160	0.500	0.000	4,310	0.500	-	-	0.500	-	-	-	-	-	0.500
MK84 FIN ASSEMBLY (F607)	A		-	-	-	0.001	1,182	1.000	0.001	1,308	1.000	-	-	1.000	-	-	-	-	-	1.000
FIN ASSY BSU-33B/B (EE10)	A		-	-	-	0.000	10,655	3.000	0.000	10,879	3.000	-	-	3.000	-	-	-	-	-	3.000
(ED41) BLU-110B/B GENERAL PURPOSE BOMB	A		-	-	-	-	-	-	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
IM	A		-	-	-	-	-	2.000	-	-	2.000	-	-	2.000	-	-	-	-	-	2.000
LWIP	A		-	-	-	-	-	3.000	-	-	3.000	-	-	3.000	-	-	-	-	-	3.000
GP BOMB IM PRODUCTION ENGINEERING	A		-	-	-	-	-	4.900	-	-	4.900	-	-	4.900	-	-	-	-	-	4.900
PMA OTHER GOVERNMENT COSTS	A		-	-	-	-	-	1.000	-	-	1.000	-	-	1.000	-	-	-	-	-	1.000
Subtotal: Uncategorized			-	-	-	-	-	17.100	-	-	17.200	-	-	17.200	-	-	-	-	-	17.200
Total			-	-	-	-	-	17.100	-	-	17.200	-	-	17.200	-	-	-	-	-	17.200

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 13: Bombs	P-1 Line Item Number / Title: 353190 / Massive Ordnance Penetrator (MOP)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604327F
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Line Item MDAP/MAIS Code: 527

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	3.600	38.382	38.111	0.000	38.111	0.000	0.000	0.000	0.000	-	80.093
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	3.600	38.382	38.111	0.000	38.111	0.000	0.000	0.000	0.000	-	80.093
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	3.600	38.382	38.111	0.000	38.111	0.000	0.000	0.000	0.000	-	80.093

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Massive Ordnance Penetrator (MOP) is a 30,000 lb class precision guided penetrator designed to defeat hard and deeply buried targets.

Funds may be used to address long lead items as well as emerging and short-notice Diminishing Manufacturing and Material Shortage (DMSMS) issues.

Funding for this exhibit is contained in PE 0208030F, project 353190.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 13: Bombs **P-1 Line Item Number / Title:** 353190 / Massive Ordnance Penetrator (MOP)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604327F

Line Item MDAP/MAIS Code: 527

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>
P-5	Massive Ordnance Penetrator (MOP)		A		- / -	- / 3.600	- / 38.382	- / 38.111	- / 0.000	- / 38.111
P-40	Total Gross/Weapon System Cost				- / -	- / 3.600	- / 38.382	- / 38.111	- / 0.000	- / 38.111

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2019 budget request includes funding for additional MOP assets, including warheads, guidance kits, fuzes, and associated support equipment.

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13	P-1 Line Item Number / Title: 353190 / Massive Ordnance Penetrator (MOP)	Item Number / Title [DODIC]: Massive Ordnance Penetrator (MOP)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	3.600	38.382	38.111	0.000	38.111
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	3.600	38.382	38.111	0.000	38.111
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	3.600	38.382	38.111	0.000	38.111

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - MASSIVE ORDNANCE PENETRATOR (MOP) Cost																		
Recurring Cost																		
MASSIVE ORDNANCE PENETRATOR (MOP)	-	-	-	-	-	3.600	-	-	38.382	-	-	38.111	-	-	0.000	-	-	38.111
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	3.600	-	-	38.382	-	-	38.111	-	-	0.000	-	-	38.111
<i>Subtotal: Hardware - MASSIVE ORDNANCE PENETRATOR (MOP) Cost</i>	-	-	-	-	-	3.600	-	-	38.382	-	-	38.111	-	-	0.000	-	-	38.111
Gross/Weapon System Cost	-	-	-	-	-	3.600	-	-	38.382	-	-	38.111	-	-	0.000	-	-	38.111

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 13: Bombs	P-1 Line Item Number / Title: 353620 / Joint Direct Attack Munition
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: 503

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	210,892	28,596	27,320	7,899	28,101	36,000	10,800	7,200	8,700	6,600	-	336,108
Gross/Weapon System Cost (<i>\$ in Millions</i>)	5,003.130	682.114	710.102	234.198	738.451	972.649	337.942	268.002	314.833	268.061	0.000	8,556.833
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	5,003.130	682.114	710.102	234.198	738.451	972.649	337.942	268.002	314.833	268.061	0.000	8,556.833
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	5,003.130	682.114	710.102	234.198	738.451	972.649	337.942	268.002	314.833	268.061	0.000	8,556.833

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	0.024	0.024	0.026	0.030	0.026	0.027	0.031	0.037	0.036	0.041	-	0.025

Description:

PY funding totals include \$390.626M appropriated for Overseas Contingency Operations (OCO). These funds procure 17,847 JDAM guidance kits. CY funding totals include \$390.577M request for Overseas Contingency Operations (OCO). These funds procure 16,990 JDAM guidance kits.

FY17 totals include amounts enacted in P.L.114-254.

The Joint Direct Attack Munition (JDAM) program is a joint Air Force/Navy program with the Air Force as the lead service. Designated ACAT 1C, this program upgrades the existing inventory of general purpose bombs (MK-82, MK-83, MK-84, BLU-109, and BLU-137) by integrating the bombs with a field installed guidance kit using a Global Positioning System-aided Inertial Navigation System (GPS/INS). JDAM provides an accurate, adverse weather capability. JDAM is integrated with the B-52H, B-2A, B-1B, F-16 (all variants), F/A-18A+/C/D/E/F, F-15E, AV-8B, A-10C and F-22A aircraft. Integration with the MQ-9 and F-35 are in progress.

The Air Force is developing the BLU-137 which is a modernized warhead penetrator to replace the BLU-109. The BLU-137 will increase fuze survivability when used against bunkers, aircraft shelters, and reinforced targets. This new warhead uses a modified JDAM tail kit hardback design which will increase tail kit unit costs for this variant.

Pursuant to section 2308 of Title 10, U.S. Code, this program will seek cost efficiencies where available through production lot negotiations. This program will continue procurement past FY 2023 due to evolving warfighter requirements driven by ongoing combat expenditures.

Funding may be used to address Diminishing Manufacturing Sources (DMS) issues.

Funding may be used to increase production capacity in order to meet warfighter demand.

Funding for this exhibit contained in PE 0207583F.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 13: Bombs

P-1 Line Item Number / Title:
353620 / Joint Direct Attack Munition

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: 503

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	Joint Direct Attack Munition	P-5a, P-21	A		210,892 / 5,003.130	28,596 / 682.114	27,320 / 710.102	7,899 / 234.198	28,101 / 738.451	36,000 / 972.649
P-40	Total Gross/Weapon System Cost				210,892 / 5,003.130	28,596 / 682.114	27,320 / 710.102	7,899 / 234.198	28,101 / 738.451	36,000 / 972.649

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY 2019 funding totals include \$234.198M to procure 7,899 guidance kits and \$738.451M in Overseas Contingency Operations (OCO) to procure 28,101 guidance kits.

This program procures JDAM guidance kits, laser sensors, airborne test equipment, and supporting activities to include software block upgrades and other technical services. The hardware purchase includes a mixture of JDAM guidance kits for the MK-82, MK-83, MK-84, BLU-109 and BLU-137 as well as precision laser guidance sensors for the MK-82, and airborne test equipment for flight test.

This procurement is critical to replenish stockpiles supporting on-going warfighter missions in which JDAM comprises the majority of combat expenditures.

Note: Procurement quantities can change based on negotiated options/pricing bands and available funding, in accordance with Title 10, U.S. Code Section 2308 BUY-TO-BUDGET ACQUISITION.

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Exhibit P-5, Cost Analysis: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13	P-1 Line Item Number / Title: 353620 / Joint Direct Attack Munition	Item Number / Title [DODIC]: Joint Direct Attack Munition
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ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	210,892	28,596	27,320	7,899	28,101	36,000
Gross/Weapon System Cost (\$ in Millions)	5,003.130	682.114	710.102	234.198	738.451	972.649
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	5,003.130	682.114	710.102	234.198	738.451	972.649
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	5,003.130	682.114	710.102	234.198	738.451	972.649

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	0.024	0.024	0.026	0.030	0.026	0.027

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Flyaway - Joint Direct Attack Munition Cost																		
Non Recurring Cost																		
Non Recurring Engineering- JDAM Facilitization	-	-	4.281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	4.281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway - Joint Direct Attack Munition Cost</i>	-	-	4.281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - Hardware End Item Cost																		
Recurring Cost																		
JDAM TAIL KIT ^(†)	0.022	210,892	4,580.445	0.022	28,596	635.756	0.022	27,320	600.540	0.023	3,886	87.894	0.023	32,114	738.451	0.023	36,000	826.345
LASER SENSOR	0.013	12,185	157.610	0.012	2,745	32.876	0.012	5,382	65.144	0.012	8,700	108.304	-	-	-	0.012	8,700	108.304
<i>Subtotal: Recurring Cost</i>	-	-	4,738.055	-	-	668.632	-	-	665.684	-	-	196.198	-	-	738.451	-	-	934.649
<i>Subtotal: Hardware - Hardware End Item Cost</i>	-	-	4,738.055	-	-	668.632	-	-	665.684	-	-	196.198	-	-	738.451	-	-	934.649
Ancillary Equipment - Ancillary Equipment End Item Cost																		
Recurring Cost																		
TEST EQUIPMENT (CMBRE)	-	-	7.735	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AIRBORNE TEST EQUIPMENT	-	-	68.830	-	-	3.909	-	-	18.000	-	-	6.000	-	-	-	-	-	6.000
<i>Subtotal: Recurring Cost</i>	-	-	76.565	-	-	3.909	-	-	18.000	-	-	6.000	-	-	-	-	-	6.000

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Exhibit P-5, Cost Analysis: PB 2019 Air Force												Date: February 2018					
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13						P-1 Line Item Number / Title: 353620 / Joint Direct Attack Munition						Item Number / Title [DODIC]: Joint Direct Attack Munition					
ID Code (A=Service Ready, B=Not Service Ready) : A												MDAP/MAIS Code:					

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Ancillary Equipment - Ancillary Equipment End Item Cost</i>	-	-	76.565	-	-	3.909	-	-	18.000	-	-	6.000	-	-	-	-	-	6.000
Support - Support End Item Cost																		
Non Recurring Engineering- Laser Sensor Facilitization	-	-	1.735	-	-	-	-	-	-	-	-	9.000	-	-	-	-	-	9.000
PMA - GOVERNMENT COSTS	-	-	46.370	-	-	1.818	-	-	2.000	-	-	2.000	-	-	-	-	-	2.000
SYSTEM TEST & EVALUATION	-	-	1.239	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
TRAINING	-	-	4.533	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
PRODUCTION SUSTAINING ENGINEERING	-	-	130.352	-	-	7.755	-	-	24.418	-	-	21.000	-	-	-	-	-	21.000
<i>Subtotal: Support - Support End Item Cost</i>	-	-	184.229	-	-	9.573	-	-	26.418	-	-	32.000	-	-	-	-	-	32.000
Gross/Weapon System Cost	0.024	210,892	5,003.130	0.024	28,596	682.114	0.026	27,320	710.102	0.030	7,899	234.198	0.026	28,101	738.451	0.027	36,000	972.649

(t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13	P-1 Line Item Number / Title: 353620 / Joint Direct Attack Munition	Item Number / Title [DODIC]: Joint Direct Attack Munition
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
JDAM TAIL KIT ^(t)	✓	2016	BOEING / ST CHARLES, MO	SS / FPIF	AFLCMC Hill AFB	Feb 2018	Feb 2018	6,826	0.022	Y		Oct 2013
JDAM TAIL KIT ^(t)		2017	BOEING / ST CHARLES, MO	SS / FPIF	AFLCMC Hill AFB	Feb 2017	Feb 2018	28,596	0.022	Y		Oct 2013
JDAM TAIL KIT ^(t)		2018	BOEING / ST CHARLES, MO	SS / FPIF	AFLCMC Hill AFB	Feb 2018	Feb 2019	27,320	0.022	Y		Oct 2013
JDAM TAIL KIT ^(t)		2019	BOEING / ST CHARLES, MO	SS / FPIF	AFLCMC Hill AFB	Feb 2019	Feb 2020	3,886	0.023	Y		Aug 2017
JDAM TAIL KIT ^(t)	✓	2019	BOEING / ST CHARLES, MO	SS / FPIF	AFLCMC Hill AFB	Feb 2019	Feb 2020	32,114	0.023	Y		Aug 2017

^(t) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13 **P-1 Line Item Number / Title:** 353620 / Joint Direct Attack Munition **Item Number / Title [DODIC]:** Joint Direct Attack Munition

Cost Elements <i>(Units in Thousands)</i>					Fiscal Year 2019													Fiscal Year 2020													B A L A N C E		
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019													Calendar Year 2020													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
JDAM TAIL KIT																																	
Prior Years Deliveries: 204066																																	
✓	1	2016	AF	6.826	4.544	2.282	.568	.568	.568	.578																			.000				
	1	2017	AF	28.596	19.064	9.532	2.383	2.383	2.383	2.383																			.000				
	1	2017	NAVY (‡)	4.642	3.093	1.549	.387	.387	.387	.388																			.000				
	1	2017	FMS (‡)	2.729	1.816	.913	.227	.227	.227	.232																			.000				
	1	2017	Total	35.967	23.973	11.994	2.997	2.997	2.997	3.003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.000				
	1	2018	AF	27.320	.000	27.320	-	-	-	-	2.275	2.275	2.275	2.277	2.277	2.277	2.277	2.277	2.277	2.277	2.277	2.279							.000				
	1	2018	NAVY (‡)	7.800	.000	7.800	-	-	-	-	.650	.650	.650	.650	.650	.650	.650	.650	.650	.650	.650	.650							.000				
	1	2018	FMS (‡)	3.000	.000	3.000	-	-	-	-	.250	.250	.250	.250	.250	.250	.250	.250	.250	.250	.250	.250							.000				
	1	2018	Total	38.120	.000	38.120	-	-	-	-	3.175	3.175	3.175	3.177	3.177	3.177	3.177	3.177	3.177	3.177	3.179	-	-	-	-	-	-	.000					
	1	2019	AF	3.886	.000	3.886					A -	-	-	-	-	-	-	-	-	-	-	.323	.323	.323	.323	.323	.323	.323	1.302				
	1	2019	NAVY (‡)	5.000	.000	5.000					A -	-	-	-	-	-	-	-	-	-	-	.416	.416	.416	.416	.416	.416	.416	1.672				
	1	2019	FMS (‡)	3.000	.000	3.000					A -	-	-	-	-	-	-	-	-	-	-	.250	.250	.250	.250	.250	.250	.250	1.000				
	1	2019	Total Base	11.886	.000	11.886					-	-	-	-	-	-	-	-	-	-	-	.989	.989	.989	.989	.989	.989	.989	3.974				
✓	1	2019	AF	32.114	.000	32.114					A -	-	-	-	-	-	-	-	-	-	-	2.676	2.676	2.676	2.676	2.676	2.676	2.676	10.706				
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13 **P-1 Line Item Number / Title:** 353620 / Joint Direct Attack Munition **Item Number / Title [DODIC]:** Joint Direct Attack Munition

Cost Elements <i>(Units in Thousands)</i>					Fiscal Year 2021													Fiscal Year 2022													BALANCE		
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021													Calendar Year 2022													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
JDAM TAIL KIT																																	
Prior Years Deliveries: 204066																																	
✓	1	2016	AF	6.826	6.826	.000																							.000				
	1	2017	AF	28.596	28.596	.000																							.000				
	1	2017	NAVY (+)	4.642	4.642	.000																							.000				
	1	2017	FMS (+)	2.729	2.729	.000																							.000				
	1	2017	Total	35.967	35.967	.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.000				
	1	2018	AF	27.320	27.320	.000																							.000				
	1	2018	NAVY (+)	7.800	7.800	.000																							.000				
	1	2018	FMS (+)	3.000	3.000	.000																							.000				
	1	2018	Total	38.120	38.120	.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.000				
	1	2019	AF	3.886	2.584	1.302	.323	.323	.323	.333																			.000				
	1	2019	NAVY (+)	5.000	3.328	1.672	.416	.416	.416	.424																			.000				
	1	2019	FMS (+)	3.000	2.000	1.000	.250	.250	.250	.250																			.000				
	1	2019	Total Base	11.886	7.912	3.974	.989	.989	.989	1.007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.000					
✓	1	2019	AF	32.114	21.408	10.706	2.676	2.676	2.676	2.678																			.000				
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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Exhibit P-21, Production Schedule: PB 2019 Air Force	Date: February 2018
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Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13	P-1 Line Item Number / Title: 353620 / Joint Direct Attack Munition	Item Number / Title [DODIC]: Joint Direct Attack Munition
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2019	1-8-5 For 2019	MAX For 2019	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	BOEING - ST CHARLES, MO	7,501	18,900	45,000	0	0	0	0	15	5	12	17

(*) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule. "A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 13: Bombs	P-1 Line Item Number / Title: 354040 / B61
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0101125F	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: 468

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	30	250	-	250	533	-	-	-	-	813
Gross/Weapon System Cost (<i>\$ in Millions</i>)	15.096	0.000	77.068	120.531	0.000	120.531	162.804	18.720	0.000	0.000	0.000	394.219
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	0.000	0.000	11.239	-	11.239	52.731	0.000	0.000	0.000	-	63.970
Net Procurement (P-1) (<i>\$ in Millions</i>)	15.096	0.000	77.068	109.292	0.000	109.292	110.073	18.720	0.000	0.000	0.000	330.249
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	0.000	11.239	52.731	-	52.731	0.000	0.000	0.000	0.000	-	63.970
Total Obligation Authority (<i>\$ in Millions</i>)	15.096	0.000	88.307	162.023	0.000	162.023	110.073	18.720	0.000	0.000	0.000	394.219

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	2.569	0.482	-	0.482	0.305	-	-	-	-	0.485

Description:

The purpose of this program element is to conduct and support United States Air Force (USAF) and Joint Department of Defense (DoD) / Department of Energy (DOE) acquisition activities for the modernization of nuclear weapons.

B61-12 Life Extension Program (LEP): The B61-12 LEP will integrate DOE efforts to extend the service life of the warhead with DoD efforts to develop a guided Tail Kit Assembly (TKA) required to maintain current B61 mission characteristics. Programmatic integration of the Air Force-led, joint DoD-DOE program is accomplished through the B61 LEP Project Officers Group (POG) and its subgroups. In accordance with Air Force Materiel Command mission assignment memo (dated 17 Feb 11) and National Nuclear Security Administration (NNSA)-Air Force Nuclear Weapons Center (AFNWC) Memorandum of Understanding (MOU dated 28 Jun 12), the USAF is responsible for development, acquisition and delivery of a guided TKA and for All Up Round (AUR) technical integration, system qualification and fielding of the B61-12 variant on multiple platforms. The production effort for the B61 TKA includes the production and delivery of TKAs, accessories, spares, ancillary equipment, trainers, lot acceptance test assets, and support.

The program also plans to use some funds to evaluate Diminishing Manufacturing Sources (DMS) material shortages, obsolescence issues, and reliability improvement, including flight testing.

Funding for this exhibit contained in PE 0101125F

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 13: Bombs **P-1 Line Item Number / Title:** 354040 / B61

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0101125F **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: 468

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	B61	P-5a, P-21	B		- / 15.096	- / 0.000	30 / 77.068	250 / 120.531	- / 0.000	250 / 120.531
P-40	Total Gross/Weapon System Cost				- / 15.096	- / 0.000	30 / 77.068	250 / 120.531	- / 0.000	250 / 120.531

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 The B61-12 LEP TKA program has completed Critical Design Review and continues to meet Reliability and Development Test targets and Manufacturing Readiness Levels on schedule to support a 1QFY19 Milestone C (MS C) decision. The program completed multiple Guided Test Vehicle (GTV) flights and is on track to complete Development Testing in FY18. The B61-12 LEP TKA FY19 funding includes the procurement of long lead, non-end item components that will be assembled into AUR Trainers, CMS end items, and Tailkit Assemblies.

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13		P-1 Line Item Number / Title: 354040 / B61
		Item Number / Title [DODIC]: B61

ID Code (A=Service Ready, B=Not Service Ready) : B				MDAP/MAIS Code:			
Resource Summary		Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (<i>Units in Each</i>)		-	-	30	250	-	250
Gross/Weapon System Cost (<i>\$ in Millions</i>)		15.096	0.000	77.068	120.531	0.000	120.531
Less PY Advance Procurement (<i>\$ in Millions</i>)		-	0.000	0.000	11.239	-	11.239
Net Procurement (P-1) (<i>\$ in Millions</i>)		15.096	0.000	77.068	109.292	0.000	109.292
Plus CY Advance Procurement (<i>\$ in Millions</i>)		-	0.000	11.239	52.731	-	52.731
Total Obligation Authority (<i>\$ in Millions</i>)		15.096	0.000	88.307	162.023	0.000	162.023
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>							
Initial Spares (<i>\$ in Millions</i>)		-	0.000	0.000	0.000	-	0.000
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)		-	-	2.569	0.482	-	0.482

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - B61 Cost																		
Recurring Cost																		
Hardware End Item (TKA) ^(†)	-	-	5.207	-	-	0.000	0.664	30	19.906	0.224	206	46.179	-	-	-	0.224	206	46.179
TKA Trainers ^(†)	-	-	-	-	-	-	-	-	-	0.157	44	6.900	-	-	-	0.157	44	6.900
<i>Subtotal: Recurring Cost</i>	-	-	5.207	-	-	0.000	-	-	19.906	-	-	53.079	-	-	-	-	-	53.079
<i>Subtotal: Hardware - B61 Cost</i>	-	-	5.207	-	-	0.000	-	-	19.906	-	-	53.079	-	-	-	-	-	53.079
Logistics - B61 Cost																		
Non Recurring Cost																		
CMS	-	-	3.378	-	-	-	-	-	4.829	-	-	3.746	-	-	-	-	-	3.746
Technical Data	-	-	-	-	-	-	-	-	-	-	-	1.174	-	-	-	-	-	1.174
<i>Subtotal: Non Recurring Cost</i>	-	-	3.378	-	-	-	-	-	4.829	-	-	4.920	-	-	-	-	-	4.920
<i>Subtotal: Logistics - B61 Cost</i>	-	-	3.378	-	-	-	-	-	4.829	-	-	4.920	-	-	-	-	-	4.920
Ancillary Equipment - B61 Cost																		
Recurring Cost																		
TKA Containers	-	-	-	-	-	-	-	-	0.135	-	-	0.563	-	-	-	-	-	0.563
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	0.135	-	-	0.563	-	-	-	-	-	0.563
Non Recurring Cost																		
Bomb Assembly (BA) Trainers	-	-	6.511	-	-	-	-	-	27.529	-	-	26.613	-	-	-	-	-	26.613

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Exhibit P-5, Cost Analysis: PB 2019 Air Force													Date: February 2018					
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13							P-1 Line Item Number / Title: 354040 / B61						Item Number / Title [DODIC]: B61					
ID Code (A=Service Ready, B=Not Service Ready) : B										MDAP/MAIS Code:								

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Test Equipment (SATS)	-	-	-	-	-	-	-	-	-	-	-	0.580	-	-	-	-	-	0.580
T&H Gear	-	-	-	-	-	-	-	-	12.121	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	6.511	-	-	-	-	-	39.650	-	-	27.193	-	-	-	-	-	27.193
<i>Subtotal: Ancillary Equipment - B61 Cost</i>	-	-	6.511	-	-	-	-	-	39.785	-	-	27.756	-	-	-	-	-	27.756
Support - B61 Cost																		
PMA	-	-	-	-	-	-	-	-	3.153	-	-	6.626	-	-	0.000	-	-	6.626
NWC Mission Support	-	-	-	-	-	-	-	-	-	-	-	1.351	-	-	0.000	-	-	1.351
System T&E	-	-	-	-	-	-	-	-	9.395	-	-	18.060	-	-	0.000	-	-	18.060
Training	-	-	-	-	-	-	-	-	-	-	-	2.530	-	-	0.000	-	-	2.530
Production Sustaining Engineering	-	-	-	-	-	-	-	-	-	-	-	6.209	-	-	0.000	-	-	6.209
<i>Subtotal: Support - B61 Cost</i>	-	-	-	-	-	-	-	-	12.548	-	-	34.776	-	-	0.000	-	-	34.776
Gross/Weapon System Cost	-	-	15.096	-	-	0.000	2.569	30	77.068	0.482	250	120.531	-	-	0.000	0.482	250	120.531

(t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13	P-1 Line Item Number / Title: 354040 / B61	Item Number / Title [DODIC]: B61
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Hardware End Item (TKA) ^(†)		2018	Boeing / Various	SS / FPIF	Eglin AFB	Feb 2018	Sep 2018	30	0.664	N	Jan 2018	Oct 2017
Hardware End Item (TKA) ^(†)		2019	Boeing / Various	SS / FPIF	Eglin AFB	Nov 2018	Aug 2019	206	0.224	N	Oct 2018	Dec 2017
TKA Trainers ^(†)		2019	Boeing / Various	TBD	Eglin AFB	Nov 2018	Aug 2019	44	0.157	N	May 2019	Dec 2017
Advance Procurement												
Hardware End Item (TKA)		2018	Boeing / Various	SS / FPIF	Eglin AFB	Feb 2018	Sep 2018	250	0.045	N	Jan 2018	Oct 2017
Hardware End Item (TKA)		2019	Boeing / Various	SS / FPIF	Eglin AFB	Jun 2019	Aug 2019	250	0.211	N	Oct 2018	Dec 2017

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13	P-1 Line Item Number / Title: 354040 / B61	Item Number / Title [DODIC]: B61
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2020												Fiscal Year 2021												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020												Calendar Year 2021												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
Hardware End Item (TKA)																															
	1	2018	AF	30	30	0																							0		
	1	2019	AF	206	36	170	16	20	44	44	46																	0			
TKA Trainers																															
	2	2019	AF	44	8	36	4	4	4	4	4	4	4	4														0			
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13	P-1 Line Item Number / Title: 354040 / B61	Item Number / Title [DODIC]: B61
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)								
		MSR For 2019	1-8-5 For 2019	MAX For 2019	Initial				Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	
1	Boeing - Various	206	550	550	0	0	0	0	0	0	2	9	11
2	Boeing - Various	44	50	50	0	2	9	11	8	2	9	11	

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Advance Procurement Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 13: Bombs	P-1 Line Item Number / Title: 354040 / B61
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Program Elements for Code B Items: 0101125F	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: 468

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	0.000	11.239	52.731	-	52.731	0.000	0.000	0.000	0.000	-	63.970
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	0.000	11.239	52.731	-	52.731	0.000	0.000	0.000	0.000	-	63.970
Total Obligation Authority (<i>\$ in Millions</i>)	-	0.000	11.239	52.731	-	52.731	0.000	0.000	0.000	0.000	-	63.970

Description:

The purpose of this program element is to conduct and support United States Air Force (USAF) and Joint Department of Defense (DoD) / Department of Energy (DOE) acquisition activities for the modernization of nuclear weapons.

B61-12 Life Extension Program (LEP): The B61-12 LEP will integrate DOE efforts to extend the service life of the warhead with DoD efforts to develop a guided Tail Kit Assembly (TKA) required to maintain current B61 mission characteristics. Programmatic integration of the Air Force-led, joint DoD-DOE program is accomplished through the B61 LEP Project Officers Group (POG) and its subgroups. In accordance with Air Force Materiel Command mission assignment memo (dated 17 Feb 11) and National Nuclear Security Administration (NNSA)-Air Force Nuclear Weapons Center (AFNWC) Memorandum of Understanding (MOU dated 28 Jun 12), the USAF is responsible for development, acquisition and delivery of a guided TKA and for All Up Round (AUR) technical integration, system qualification and fielding of the B61-12 variant on multiple platforms. The production effort for the B61 TKA includes the production and delivery of TKAs, accessories, spares, ancillary equipment, trainers, lot acceptance test assets, and support. Advance procurement is required for the purchase of long lead items and life of type buy components for the TKA, the AUR trainers, and associated nuclear support equipment, and code management systems prior to entry into Milestone C and the Full Rate Production decision.

Note: FY16 (Prior Year) included \$1.685M of Advance Procurement.

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Exhibit P-40, Advance Procurement Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 13: Bombs	P-1 Line Item Number / Title: 354040 / B61
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Program Elements for Code B Items: 0101125F	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: 468

Exhibits Schedule				Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-10	B61			- / -	- / 0.000	30 / 11.239	250 / 52.731	- / -	250 / 52.731
P-40	Total Gross/Weapon System Cost			- / -	- / 0.000	30 / 11.239	250 / 52.731	- / -	250 / 52.731

*Title represents the P-10 Title for Advance Procurement.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
The B61-12 LEP TKA requires FY19 advance procurement for long lead, non-end item components that will be assembled into AUR Trainers, CMS end items, and Tailkit Assemblies, beginning in FY20-21.

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Exhibit P-10, Advance Procurement Requirements Analysis (page 1 - Budget Funding Justification): PB 2019 Air Force					Date: February 2018		
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13			P-1 Line Item Number / Title: 354040 / B61			P-5 Number / Title: B61	
First System (2019) Award Date: January 2018		First System (2019) Completion Date: August 2018			Interval Between Systems: 0 Months		
B61		Production Leadtime <i>(Months)</i>	Prior Years <i>(Each)</i>	FY 2017 <i>(Each)</i>	FY 2018 <i>(Each)</i>	FY 2019 <i>(Each)</i>	
Quantity		7	-	-	30	250	
Cost Elements		When Required <i>(Months)</i>	Prior Years <i>(\$ M)</i>	FY 2017 <i>(\$ M)</i>	FY 2018 <i>(\$ M)</i>	FY 2019 <i>(\$ M)</i>	
CFE							
Hardware End Item (TKA) (†)		18	-	-	11.239	52.731	
<i>Total: CFE</i>			-	-	11.239	52.731	
Total Advance Procurement/Obligation Authority			-	0.000	11.239	52.731	

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Exhibit P-10, Advance Procurement Requirements Analysis (page 2 - Budget Funding Justification): PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 13	P-1 Line Item Number / Title: 354040 / B61	P-5 Number / Title: B61
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Cost Elements	QPA <i>(Each)</i>	FY 2019					Total Cost Request <i>(\$ M)</i>
		Production Leadtime <i>(Months)</i>	Unit Cost <i>(\$ M)</i>	Contract Forecast Date	2019 Qty <i>(Each)</i>	For FY	
CFE							
Hardware End Item (TKA) ^(†)	-	18	0.211	Jun 2019	250		52.731
<i>Total: CFE</i>							52.731
Total Advance Procurement/Obligation Authority							52.731

Description:
The B61-12 LEP TKA program requires FY19 advance procurement for long lead, non-end item components that will be assembled into AUR trainers, CMS end items, and Tailkit Assemblies, beginning in FY20-FY21.

(†) indicates the presence of Contract Data presented in the associated P-5 Item's P-5a exhibit.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 15: Other Items **P-1 Line Item Number / Title:** 355100 / Cad/Pad

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	38.009	53.469	51.455	0.000	51.455	47.070	47.945	48.813	49.693	-	336.454
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	38.009	53.469	51.455	0.000	51.455	47.070	47.945	48.813	49.693	-	336.454
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	38.009	53.469	51.455	0.000	51.455	47.070	47.945	48.813	49.693	-	336.454

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Cartridge Actuated Devices/Propellant Actuated Devices (CAD/PAD) are critical explosive items used to activate pilot/aircrew life-support/survival emergency-release and aircrew-escape/ejection systems, other aircrew flight and survival equipment, aerial refueling and data destruction systems. CAD/PAD components are used in every USAF mission area, i.e. combat, training, force protection, search & rescue and humanitarian relief. These explosive devices have finite lives and are replaced based on time-change, shelf/service life requirements and during scheduled aircraft maintenance. The CAD/PAD category includes items such as the Universal Water Activated Release System (UWARS), parachute-release cartridges, Shield Mild-Detonating Cord (SMDC), rocket motors, rocket catapults, time-delay cartridges, initiators, rocket catapults, gas generators, etc.

CAD/PAD items are purchased for AF by the CAD/PAD Joint Program Office at Hill AFB, UT.

Funding for this exhibit contained in PE 0708070F.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 15: Other Items **P-1 Line Item Number / Title:** 355100 / Cad/Pad

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Cad/Pad				- / -	- / 38.009	- / 53.469	- / 51.455	- / 0.000	- / 51.455
P-40	Total Gross/Weapon System Cost				- / -	- / 38.009	- / 53.469	- / 51.455	- / 0.000	- / 51.455

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY2019 funds will be used for the on-going effort to maintain Aircraft operational availability and pilot safety. CAD/PAD assets expire due to established item shelf/service life, or mandatory "time-change" procedures for installed devices. In accordance with T.O.00-20-1, the aircraft becomes grounded until reliable assets are obtained and installed.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 15 **P-1 Line Item Number / Title:** 355100 / Cad/Pad **Aggregated Items Title:** Cad/Pad

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
BOMBER AIRCRAFT	A		-	-	-	-	-	5.851	-	-	7.964	-	-	6.400	-	-	0.000	-	-	6.400
CARGO AIRCRAFT	A		-	-	-	-	-	2.822	-	-	10.040	-	-	13.000	-	-	-	-	-	13.000
FIGHTER AIRCRAFT	A		-	-	-	-	-	7.740	-	-	10.535	-	-	8.855	-	-	-	-	-	8.855
TRAINING AIRCRAFT	A		-	-	-	-	-	17.480	-	-	16.326	-	-	14.000	-	-	-	-	-	14.000
COMMON EGRESS ITEMS	A		-	-	-	-	-	2.061	-	-	5.806	-	-	6.000	-	-	-	-	-	6.000
COMMON LIFE SUPPORT ITEMS	A		-	-	-	-	-	1.963	-	-	2.672	-	-	3.000	-	-	-	-	-	3.000
COMMON MISC ITEMS	A		-	-	-	-	-	0.092	-	-	0.126	-	-	0.200	-	-	-	-	-	0.200
Subtotal: Uncategorized			-	-	-	-	-	38.009	-	-	53.469	-	-	51.455	-	-	0.000	-	-	51.455
Total			-	-	-	-	-	38.009	-	-	53.469	-	-	51.455	-	-	0.000	-	-	51.455

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 15: Other Items

P-1 Line Item Number / Title:
355450 / Explosive Ordnance Disposal (EOD)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	5.714	5.921	6.038	0.000	6.038	6.133	6.247	6.361	6.474	-	42.888
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	5.714	5.921	6.038	0.000	6.038	6.133	6.247	6.361	6.474	-	42.888
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	5.714	5.921	6.038	0.000	6.038	6.133	6.247	6.361	6.474	-	42.888

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Explosive Ordnance Disposal (EOD) materials support Civil Engineer, EOD, Security Forces Military Working Dogs, RED HORSE, Special Forces operations and training, and formal schools with demolition munitions. Used in deployment packages, base response assets and range clearance resources in support of peacetime and contingency operations. These items are certified for use by the Air Force Non-Nuclear Munitions Safety Board (NNMSB) and the Department of Defense Explosives Safety Board (DDESB).

The Air Force procures munitions to maintain appropriate quantities in the War Reserve Materiel (WRM) Munitions and test and training stockpiles. Active, Guard and Reserve components draw from the WRM stockpiles as required and receive test and training allocations annually based on current-year requirements.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Funding for this exhibit is contained in PE 0204424F.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 15: Other Items

P-1 Line Item Number / Title:
355450 / Explosive Ordnance Disposal (EOD)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Explosive Ordnance Disposal (EOD)				- / -	- / 5.714	- / 5.921	- / 6.038	- / -	- / 6.038
P-40	Total Gross/Weapon System Cost				- / -	- / 5.714	- / 5.921	- / 6.038	- / 0.000	- / 6.038

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY2019 purchases Explosive Ordnance Disposal (EOD), Demolition Material, Civil Engineering Tools and Equipment including all explosives, explosive tools and related equipment to render unexploded ordnance safe. Assets Provide support for Counter Improvised Explosive Devices (IED) operations, Special Operations teams, formal schools and Military Working Dog training. EOD/Demolition Munitions items are used in deployment packages, base response assets and range clearance resources in support of peacetime and contingency operations.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 15 **P-1 Line Item Number / Title:** 355450 / Explosive Ordnance Disposal (EOD) **Aggregated Items Title:** Explosive Ordnance Disposal (EOD)

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
(AA62) 12 GAUGE M274 ULTRA CARTRIDGE	A		-	-	-	0.000	314	0.002	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
(M023) - CHARGE, DEMOLITION C4-M112	A		-	-	-	0.000	58,235	2.659	0.000	74,103	2.700	0.000	26,420	1.000	-	-	-	0.000	26,420	1.000
(M031) CHG DEMO TNT 1/2LB	A		-	-	-	-	-	-	-	-	-	0.000	9,346	0.040	-	-	-	0.000	9,346	0.040
(M097) INERT, NON-ELECTRIC CAP	A		-	-	-	-	-	-	-	-	0.000	0.000	149	0.004	-	-	-	0.000	149	0.004
(M130) - CAP BLASTING ELECTRIC M6	A		-	-	-	0.000	12,077	0.500	0.000	18,036	0.600	0.000	13,387	0.568	-	-	-	0.000	13,387	0.568
(M131) - CAP, BLASTING NON-ELECTRIC-M7	A		-	-	-	0.000	9,285	0.200	0.000	13,272	0.300	0.000	16,129	0.500	-	-	-	0.000	16,129	0.500
(M456) - CORD ASBLY DETONATING	A		-	-	-	0.000	238,095	0.100	0.000	241,991	0.100	0.000	232,558	0.100	-	-	-	0.000	232,558	0.100
(M591) - DYNAMITE MILITARY M1 1LB BLOCK	A		-	-	-	0.000	3,636	0.004	-	-	0.000	-	-	-	-	-	-	-	-	-
(M980) - DETA SHEET	A		-	-	-	0.000	6,393	0.200	-	-	0.000	0.000	6,105	0.200	-	-	-	0.000	6,105	0.200
(M993) CHARGE, DEMO, C1.5 DETA SHEET .062	A		-	-	-	-	-	0.000	-	-	0.000	0.000	1,114	0.400	-	-	-	0.000	1,114	0.400
(ML47) - B CAP W/30 FT SHOCK TUBE	A		-	-	-	0.000	337	0.015	-	-	0.000	0.000	138	0.010	-	-	-	0.000	138	0.010
(MM24) DEMO ECT, MK 142, 300GPF	A		-	-	-	0.000	7,991	0.150	0.000	10,655	0.200	-	-	0.000	-	-	-	-	-	0.000
(MM30) CHARGE, 20 GRAM MK 140 MOD 0	A		-	-	-	0.007	1	0.007	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
(MM51) DEMO ECT, MK 143, 600GPF	A		-	-	-	0.000	843	0.100	0.000	1,686	0.200	-	-	0.000	-	-	-	-	-	0.000
(MM52) DEMO ECT, MK144, 1200GPF	A		-	-	-	0.000	2,112	0.150	0.000	2,816	0.200	0.000	1,256	0.112	-	-	-	0.000	1,256	0.112
(MM53) - DEMO ECT, MK145, 2400GPF	A		-	-	-	0.000	2,608	0.300	0.000	808	0.093	0.000	1,777	0.200	-	-	-	0.000	1,777	0.200
(MM54) - EXPLOSIVE CUTTING TAPE	A		-	-	-	0.000	4,460	0.400	0.000	6,689	0.600	0.000	5,505	0.600	-	-	-	0.000	5,505	0.600
(MM56) DETONATOR,	A		-	-	-	-	-	0.000	-	-	0.000	0.000	600,000	0.400	-	-	-	0.000	600,000	0.400

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 15 **P-1 Line Item Number / Title:** 355450 / Explosive Ordnance Disposal (EOD) **Aggregated Items Title:** Explosive Ordnance Disposal (EOD)

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
PERCUSSION 175MS DELAY																				
(MN07) - N/E 70FT DELAY SHOCK TUBE	A		-	-	-	0.000	2,054	0.039	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
(MN06) M14 SET UP, N/E CAP WITH TIME FUZE	A		-	-	-	-	-	-	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
(MN08) - IGNITER TIME BLASTING	A		-	-	-	0.000	9,293	0.200	0.000	23,102	0.200	-	-	0.000	-	-	-	-	-	0.000
(MN23) - DEMO ECT, MK152, 900GPF (LHFLSC)	A		-	-	-	-	-	0.338	0.000	4,807	0.269	-	-	0.000	-	-	-	-	-	0.000
(MN82) - SEMTEX A	A		-	-	-	-	-	-	0.000	3,425	0.100	-	-	0.000	-	-	-	-	-	0.000
(MN85) - DYNAMITE, 75% AMMON NITRATE	A		-	-	-	-	-	-	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
(MN86) CAP, BLAST NON-ELEC W/200 FT MINI-TUBE M19	A		-	-	-	-	-	-	-	-	-	-	-	0.357	-	-	-	-	-	0.357
(MN88) - SHOCK TUBE W/BLASTING CAP 500	A		-	-	-	-	-	-	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
(MN90) - M-13 1,000 FT SHOCK TUBE W/ CAP M23	A		-	-	-	-	-	-	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
(MP29) DETONATOR, NONELEC, DUEL 40 FT MK 164 MOD 0	A		-	-	-	-	-	-	-	-	-	-	-	0.400	-	-	-	-	-	0.400
(SS01) - CTG, 50 CAL ELEC BLANK MK209 MOD 1	A		-	-	-	0.300	1	0.300	0.000	1,860	0.200	0.000	7,239	0.886	-	-	-	0.000	7,239	0.886
(YY34) - SHOCK TUBE	A		-	-	-	0.000	98,039	0.050	0.000	196,078	0.100	0.000	384,615	0.200	-	-	-	0.000	384,615	0.200
PMA	A		-	-	-	-	-	-	-	-	0.059	-	-	0.061	-	-	-	-	-	0.061
Subtotal: Uncategorized			-	-	-	-	-	5.714	-	-	5.921	-	-	6.038	-	-	-	-	-	6.038
Total			-	-	-	-	-	5.714	-	-	5.921	-	-	6.038	-	-	-	-	-	6.038

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 15: Other Items

P-1 Line Item Number / Title:
355900 / Spares And Repair Parts

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	0.740	0.678	0.524	0.000	0.524	0.533	0.543	0.554	0.564	-	4.136
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	0.740	0.678	0.524	0.000	0.524	0.533	0.543	0.554	0.564	-	4.136
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	0.740	0.678	0.524	0.000	0.524	0.533	0.543	0.554	0.564	-	4.136

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This P-1 line funds spares and repair parts for Procurement of Ammunition, Air Force (PAAF) items. Initial spares consist of reparable components, assemblies and subassemblies, as well as consumable items required in support of newly fielded end items. Requirements are based on historical failure/demand data on similar items. Replenishment spares consist of reparable components, assemblies and subassemblies required for follow-on sustainment of end items. Munitions replenishment spare levels are based on item-specific failure/demand driven computations.

Provide Area Attack telemetry kit WSEP analysis for Wind Corrected Munitions Dispenser (WCMD). Contractor will perform engineering study, installation, delivery and testing for WCMD weapons with telemetry kits.

PE associated with this P-1 Line is 0208030F.

Justification:

FY19 funds are used for spares and repair parts for Procurement of Ammunition, Air Force (PAAF) items.

The Air Force procures munitions to maintain appropriate quantities in the War Reserve Materiel (WRM) Munitions and test and training stockpiles. Active, Guard and Reserve components draw from the WRM stockpiles as required and receive test and training allocations annually based on current-year requirements.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 15: Other Items
P-1 Line Item Number / Title: 355970 / Modifications

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	0.573	1.409	1.270	0.000	1.270	1.291	1.313	1.337	1.361	-	8.554
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	0.573	1.409	1.270	0.000	1.270	1.291	1.313	1.337	1.361	-	8.554
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	0.573	1.409	1.270	0.000	1.270	1.291	1.313	1.337	1.361	-	8.554

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This budget line encompasses both new and on-going modification efforts for guided bomb and munitions systems. Permanent modifications consist of configuration changes to in-service systems and equipment which correct material/other deficiencies or add/delete capability. Safety modifications correct deficiencies which may create personnel, system or equipment hazards.

The FY17 funding request was reduced by \$0.878 million to account for the availability of prior year execution balances.

Funding for this exhibit contained in PE 0208030F.

Justification:

The FY2019 funding request is a low cost mod for guided bomb and munitions systems that reflects estimated costs based on historical funding requirements and projected future requirements.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity:
3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 15: Other Items

P-1 Line Item Number / Title:
355990 / Items Less Than \$5,000,000

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	5.156	5.047	4.604	0.000	4.604	4.677	4.764	4.850	4.937	-	34.035
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	5.156	5.047	4.604	0.000	4.604	4.677	4.764	4.850	4.937	-	34.035
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	5.156	5.047	4.604	0.000	4.604	4.677	4.764	4.850	4.937	-	34.035

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This category includes various munitions items to support air base ground defense, air rescue and aircrew/ground training.

The Air Force procures munitions to maintain appropriate quantities in the War Reserve Materiel Munitions and test and training stockpiles. Active, Guard and Reserve components draw from the WRM stockpiles as required and receive test and training allocations annually based on current-year requirements.

All items listed on the following P-40A have an annual procurement value of less than \$5 million and are code A.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

PEs associated with this P-1 Line are 0207580F and 0207599F.

Justification:

FY2019 purchases miscellaneous munitions such as hand grenades, grenades with colored smoke for signaling aircrews and air-rescue, and ground-burst simulators primarily used for air-base and ground support missions.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 16: Flares **P-1 Line Item Number / Title:** 356010 / Flares

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	141.240	147.481	125.286	12.116	137.402	111.116	125.187	164.319	167.276	-	994.021
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	141.240	147.481	125.286	12.116	137.402	111.116	125.187	164.319	167.276	-	994.021
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	141.240	147.481	125.286	12.116	137.402	111.116	125.187	164.319	167.276	-	994.021

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

PY2017 funding totals includes \$6.531M appropriated for Overseas Contingency Operations.

CY2018 funding totals includes \$3.498M appropriated for Overseas Contingency Operations.

The following Weapon System Cost Elements are represented in this P-1 line:

-(L410) M206 Flare is an infrared countermeasures flare used by A-10, F-16, C-17, C-130, and other aircraft against heat seeking missiles. This item is procured through the Single Manager for Conventional Ammunition (SMCA)/Army.

-(L461) MJU-10 flare which has been used primarily by the F-15 aircraft against heat seeking missiles will be replaced in FY18 by the MJU-53/B. The MJU-53/B is procured by the USAF. The USAF will no longer procure the MJU-10 which has been done through SMCA.

-(L462) MJU-23 Infrared Countermeasure Flare used on the B-1B aircraft against heat seeking missiles. The MJU-23 flare includes a specially designed high ejection cartridge (BBU-46) that propels the burning flare pellet upward with sufficient velocity to clear the aircraft during high speed, low level flight.

-(L463) MJU-7 IR Flare is an infrared countermeasures flare applicable to the A-10, F-15, F-16, F-22 and other aircraft. It creates an infrared signature and acts as a decoy against heat seeking missiles. Will be replaced by MJU-53 in 2020. This item is procured through the Single Manager for Conventional Ammunition (SMCA)/Army.

-(LA36) MJU-62 Flare is a multi-spectral countermeasure designed to be used as part of a flare cocktail pattern to confuse advanced infrared threat missiles. Used primarily on the C-17 and C5 aircraft which require a 1 inch by 2 inch by 8 inch flare size to accommodate desired cocktail flare mixes. MJU-62 is being evaluated for use on other types of aircraft such as F-16, A-10 and HH60. This item is procured through USAF.

-(LA66) The MJU-61 is an infrared countermeasure flare used by F-35 aircraft against heat seeking missiles. This item is procured through the Navy PMA 272.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 16: Flares		P-1 Line Item Number / Title: 356010 / Flares
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>-(LA61) MJU-66 decoy Countermeasure Flare is an improved version of the MJU-64 providing increased decoy effectiveness and protection for the A-10, C-130 and F-35 aircraft and HH-53 and HH-60 helicopters and being evaluated for other aircraft. It is a one-piece aluminum case containing a payload of advanced special material elements, loaded into a multiple jettison unit magazine installed on a countermeasure dispenser. When deployed into the air stream, the special material reacts to emit an infrared signal to decoy infrared seeking missiles. This item is procured through Navy PMA-272 and USAF.</p> <p>-(LA67) MJU-71 IR Flare is a magnesium based thrusted flare used in a cocktail mix of flares on aircraft to improve the effectiveness of the countermeasures against heat-seeking missile threats. The 1x1x8 inch size provides better protection of the aircraft and flight crew. Other versions of thrusted flares are larger and use more space in the flare dispensers, severely limiting the number of ejection events. Initially approved for use on the C-130, A-10 and F-16 aircraft with on-going tests for use on other platforms. This item is procured through the Navy. PMA-272 and USAF.</p> <p>-(LA68) MJU-68 Flare is a magnesium based countermeasure and was developed specifically for the F-35/JSF aircraft to provide protection from advanced infrared threat missiles. This item is procured through Navy PMA 272.</p> <p>-(LA21) MJU-53 Flare is a magnesium base IR countermeasure. It consists of an aluminum case, crimped and sealed plastic end cap, rubber spacer, plastic piston, safe and ignition device, flare pellet and sealed cartridge cup. It is dispensed and ignited in flight by a BBU-36 impulse cartridge cup. Used on C-17, C-5, and being evaluated for future use on other aircraft such as A-10, F-16 and HH-60. This item is procured through USAF.</p> <p>-(LY12) The ALA-17C is an infrared countermeasure used by B-52 aircraft against heat seeking missiles. This item is procured through the US Air Force Global Strike Command and is currently upgrading to the ALE-47 dispenser system which could possibly eliminate the ALA-17 and provide the SPO with the ability to use common flares.</p> <p>-(LA76) The MJU-73 is a spectral flare that is used in a cocktail mix of flares to increase protection against heat-seeking missile threats. This 1x1x8 inch sized flare is primarily used on the HH-60, and is expected to be qualified on several-fixed wing aircraft in the near future. This item is procured through the US Air Force.</p> <p>-(LA78) The XM219 is a bundled flare that is used in a cocktail mix of flares to increase protection against heat-seeking missile threats. This 1x1x8 inch sized flare provides a unique dispensing pattern and is primarily used on the HH-60. This item is procured by the US Army/SOCOM.</p> <p>-Items Less Than Five Million Dollars: All items have an annual procurement of less than \$5,000,000 and are Code A.</p> <p>In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.</p> <p>Funding for this exhibit contained in PEs:0208030F and 0207599F.</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 16: Flares **P-1 Line Item Number / Title:** 356010 / Flares

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	(L410) M206 FLARE	P-5a	A		- / -	- / 20.882	- / 20.000	- / 25.000	- / -	- / 25.000
P-5	(L461) MJU-10 FLARE	P-5a	A		- / -	- / 5.000	- / 2.500	- / 0.000	- / -	- / 0.000
P-5	(L463) MJU-7A/B, IR FLARE	P-5a	A		- / -	- / 16.885	- / 7.549	- / 12.000	- / -	- / 12.000
P-40a	(LA21) MJU-53/B IR CM FLARE				- / -	- / 13.718	- / 43.498	- / 30.000	- / 12.116	- / 42.116
P-40a	(LA36) MJU-62/B IR CM FLARE				- / -	- / 7.400	- / 6.000	- / 5.000	- / -	- / 5.000
P-40a	(LA61) MJU-66 CM ACFT FLARE				- / -	- / 17.359	- / 16.434	- / 9.000	- / -	- / 9.000
P-40a	(LA66) MJU-61 IR CM FLARE				- / -	- / 4.000	- / 4.500	- / 6.286	- / -	- / 6.286
P-40a	(LA67) FLARE, IR, CM (MJU-71/B)				- / -	- / 17.466	- / 22.000	- / 17.000	- / -	- / 17.000
P-40a	(LA68) MJU-68/B IR CM FLARE				- / -	- / 14.190	- / 20.000	- / 18.000	- / -	- / 18.000
P-40a	(LY12) ALA-17 FLARE CARTRIDGE				- / -	- / 10.150	- / 5.000	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost				- / -	- / 141.240	- / 147.481	- / 125.286	- / 12.116	- / 137.402

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY2019 purchases countermeasures and flares used by A-10, AC-130, F-15, F-16,C-5, C-17 and F-35/JSF aircraft, HH-53 and HH-60 helicopters and other aircraft to protect the warfighter against advanced air-to-air and ground-to-air infrared and heat seeking attack weapon systems and missiles.

The Air Force procures munitions to maintain appropriate quantities in the War Reserve Materiel (WRM) Munitions and test and training stockpiles. Active, Guard and Reserve components draw from the WRM stockpiles as required and receive test and training allocations annually based on current-year requirements.

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 16	P-1 Line Item Number / Title: 356010 / Flares	Item Number / Title [DODIC]: (L410) M206 FLARE

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	20.882	20.000	25.000	-	25.000
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	20.882	20.000	25.000	-	25.000
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	20.882	20.000	25.000	-	25.000

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Hardware End Item Cost																		
Recurring Cost																		
M206 FLARE - L410 ^(t)	-	-	-	0.000	599,066	20.530	0.000	513,326	19.491	0.000	645,009	24.491	-	-	-	0.000	645,009	24.491
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	20.530	-	-	19.491	-	-	24.491	-	-	-	-	-	24.491
<i>Subtotal: Hardware - Hardware End Item Cost</i>	-	-	-	-	-	20.530	-	-	19.491	-	-	24.491	-	-	-	-	-	24.491
Support - Support End Item Cost																		
PRODUCTION ENGINEERING	-	-	-	-	-	0.350	-	-	0.503	-	-	0.503	-	-	-	-	-	0.503
QUALITY ASSURANCE	-	-	-	-	-	0.002	-	-	0.006	-	-	0.006	-	-	-	-	-	0.006
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	0.352	-	-	0.509	-	-	0.509	-	-	-	-	-	0.509
Gross/Weapon System Cost	-	-	-	-	-	20.882	-	-	20.000	-	-	25.000	-	-	-	-	-	25.000

Remarks:

The Single Manager for Conventional Ammunition (SMCA), Department of Army provides this cost analysis with estimates obtained from industry based on quantity range matrices and forecasted cost of materials.

^(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 16	P-1 Line Item Number / Title: 356010 / Flares	Item Number / Title [DODIC]: (L410) M206 FLARE
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
M206 FLARE - L410		2017	KILGORE AND ARMTEC / TOONE, TN AND COACHELLA, CA	MIPR	ACC-ROCK ISLAND	Mar 2017	Mar 2018	599,066	0.000	Y		
M206 FLARE - L410		2018	KILGORE AND ARMTEC / TOONE, TN AND COACHELLA, CA	MIPR	ACC-ROCK ISLAND	Mar 2018	Mar 2019	513,326	0.000	Y		
M206 FLARE - L410		2019	KILGORE AND ARMTEC / TOONE, TN AND COACHELLA, CA	MIPR	ACC-ROCK ISLAND	Mar 2019	Mar 2020	645,009	0.000	Y		

Remarks:
The Single Manager for Conventional Ammunition (SMCA/Army) procures the M206 Flare for the Air Force and other Military Services having requirements for the same or similar items. SMCA establishes contracts based on the competitive environment among qualified sources.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 16		P-1 Line Item Number / Title: 356010 / Flares
		Item Number / Title [DODIC]: (L461) MJU-10 FLARE

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	5.000	2.500	0.000	-	0.000
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	5.000	2.500	0.000	-	0.000
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	5.000	2.500	0.000	-	0.000

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Hardware End Item Cost																		
Recurring Cost																		
MJU-10 FLARE - L461 ^(t)	-	-	-	0.000	27,435	4.996	0.000	13,538	2.497	0.000	7,986	0.000	-	-	-	0.000	7,986	0.000
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	4.996	-	-	2.497	-	-	0.000	-	-	-	-	-	0.000
<i>Subtotal: Hardware - Hardware End Item Cost</i>	-	-	-	-	-	4.996	-	-	2.497	-	-	0.000	-	-	-	-	-	0.000
Support - Support End Item Cost																		
QUALITY ASSURANCE	-	-	-	-	-	0.004	-	-	0.003	-	-	0.000	-	-	-	-	-	0.000
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	0.004	-	-	0.003	-	-	0.000	-	-	-	-	-	0.000
Gross/Weapon System Cost	-	-	-	-	-	5.000	-	-	2.500	-	-	0.000	-	-	-	-	-	0.000

Remarks:

The Single Manager for Conventional Ammunition (SMCA), Department of Army provides this cost analysis with estimates obtained from industry based on quantity range matrices and forecasted cost of materials.

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 16	P-1 Line Item Number / Title: 356010 / Flares	Item Number / Title [DODIC]: (L461) MJU-10 FLARE
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
MJU-10 FLARE - L461		2017	KILGORE AND ARMTEC / TOONE, TN AND COACHELLA, CA	MIPR	ACC-ROCK ISLAND	Mar 2017	Mar 2018	27,435	0.000	Y		
MJU-10 FLARE - L461		2018	KILGORE AND ARMTEC / TOONE, TN AND COACHELLA, CA	MIPR	ACC-ROCK ISLAND	Mar 2018	Mar 2019	13,538	0.000	Y		

Remarks:
The Single Manager for Conventional Ammunition (SMCA/Army) procures the MJU-10 Countermeasure Flare for the Air Force and other Military Services having requirements for the same or similar items. SMCA establishes contracts based on the competitive environment among qualified sources.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 16	P-1 Line Item Number / Title: 356010 / Flares	Item Number / Title [DODIC]: (L463) MJU-7A/B, IR FLARE

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	16.885	7.549	12.000	-	12.000
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	16.885	7.549	12.000	-	12.000
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	16.885	7.549	12.000	-	12.000

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Hardware End Item Cost																		
Recurring Cost																		
MJU-7A/B IR FLARE - L463 ^(t)	-	-	-	0.000	302,617	16.883	0.000	131,928	7.541	0.000	209,710	11.987	-	-	-	0.000	209,710	11.987
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	16.883	-	-	7.541	-	-	11.987	-	-	-	-	-	11.987
<i>Subtotal: Hardware - Hardware End Item Cost</i>	-	-	-	-	-	16.883	-	-	7.541	-	-	11.987	-	-	-	-	-	11.987
Support - Support End Item Cost																		
QUALITY ASSURANCE	-	-	-	-	-	0.002	-	-	0.008	-	-	0.013	-	-	-	-	-	0.013
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	0.002	-	-	0.008	-	-	0.013	-	-	-	-	-	0.013
Gross/Weapon System Cost	-	-	-	-	-	16.885	-	-	7.549	-	-	12.000	-	-	-	-	-	12.000

Remarks:

The Single Manager for Conventional Ammunition (SMCA), Department of Army provides this cost analysis with estimates obtained from industry based on quantity range matrices and forecasted cost of materials.

^(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 16	P-1 Line Item Number / Title: 356010 / Flares	Item Number / Title [DODIC]: (L463) MJU-7A/B, IR FLARE
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
MJU-7A/B IR FLARE - L463		2017	KILGORE AND ARMTEC / TOONE, TN AND COACHELLA, CA	MIPR	ACC-ROCK ISLAND	Mar 2017	Mar 2018	302,617	0.000	Y		
MJU-7A/B IR FLARE - L463		2018	KILGORE AND ARMTEC / TOONE, TN AND COACHELLA, CA	MIPR	ACC-ROCK ISLAND	Mar 2018	Mar 2019	131,928	0.000	Y		
MJU-7A/B IR FLARE - L463		2019	KILGORE AND ARMTEC / TOONE, TN AND COACHELLA, CA	MIPR	ACC-ROCK ISLAND	Mar 2019	Feb 2020	209,710	0.000	Y		

Remarks:
The Single Manager for Conventional Ammunition (SMCA/Army) procures the MJU-7 Infrared Flare for the Air Force and other Military Services having requirements for the same or similar items. SMCA establishes contracts based on the competitive environment among qualified sources.

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 16 **P-1 Line Item Number / Title:** 356010 / Flares **Aggregated Items Title:** (LA21) MJU-53/B IR CM FLARE

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
UNCATEGORIZED																				
(LA21) MJU-53/B INFRARED COUNTERMEASURE FLARE	A		-	-	-	0.000	208,796	13,718	0.000	579,973	43,498	0.000	400,000	30,000	0.000	161,546	12,116	0.000	561,546	42,116
Subtotal: UNCATEGORIZED			-	-	-	-	-	13,718	-	-	43,498	-	-	30,000	-	-	12,116	-	-	42,116
Total			-	-	-	-	-	13,718	-	-	43,498	-	-	30,000	-	-	12,116	-	-	42,116

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:

The MJU-53 Infrared Countermeasure Flare is purchased by the Munitions Division, AFMC. Unit prices are estimates from industry.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 16 **P-1 Line Item Number / Title:** 356010 / Flares **Aggregated Items Title:** (LA36) MJU-62/B IR CM FLARE

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
(LA36) MJU-62 IR CM FLARE	A		-	-	-	0.000	37,324	7.400	0.000	20,690	6.000	0.000	17,241	5.000	-	-	-	0.000	17,241	5.000
Subtotal: Uncategorized			-	-	-	-	-	7.400	-	-	6.000	-	-	5.000	-	-	-	-	-	5.000
Total			-	-	-	-	-	7.400	-	-	6.000	-	-	5.000	-	-	-	-	-	5.000

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:

The MJU-62 Infrared Countermeasure Flare is purchased by the Munitions Division, AFMC. Unit prices are estimates from industry.

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 16	P-1 Line Item Number / Title: 356010 / Flares	Aggregated Items Title: (LA61) MJU-66 CM ACFT FLARE
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
(LA61) MJU-66 Decoy ACFT Flare	A		-	-	-	0.000	133,447	17.359	0.000	136,950	16.434	0.000	75,000	9.000	-	-	-	0.000	75,000	9.000
Subtotal: Uncategorized			-	-	-	-	-	17.359	-	-	16.434	-	-	9.000	-	-	-	-	-	9.000
Total			-	-	-	-	-	17.359	-	-	16.434	-	-	9.000	-	-	-	-	-	9.000

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:

The MJU-66 Decoy is purchased through Navy PMA-272 and USAF. The cost analysis is provided to the Navy and USAF with estimates obtained from industry based on quantity range matrices and forecasted cost of materials. FY2017 prices have been amended to reflect more closely the proposed costs based in materiel cost increases.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 16 **P-1 Line Item Number / Title:** 356010 / Flares **Aggregated Items Title:** (LA66) MJU-61 IR CM FLARE

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
(LA66) MJU-61 IR CM Flare	A		-	-	-	0.000	53,333	4.000	0.000	60,000	4.500	0.000	83,814	6.286	-	-	-	0.000	83,814	6.286
Subtotal: Uncategorized			-	-	-	-	-	4.000	-	-	4.500	-	-	6.286	-	-	-	-	-	6.286
Total			-	-	-	-	-	4.000	-	-	4.500	-	-	6.286	-	-	-	-	-	6.286

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 16 **P-1 Line Item Number / Title:** 356010 / Flares **Aggregated Items Title:** (LA67) FLARE, IR, CM (MJU-71/B)

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
(LA67) FLARE, IR, CM (MJU-71/B)	A		-	-	-	0.000	36,376	17.466	0.001	44,000	22.000	0.001	34,000	17.000	-	-	-	0.001	34,000	17.000
Subtotal: Uncategorized			-	-	-	-	-	17.466	-	-	22.000	-	-	17.000	-	-	-	-	-	17.000
Total			-	-	-	-	-	17.466	-	-	22.000	-	-	17.000	-	-	-	-	-	17.000

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:

The MJU-71 Infrared Countermeasure Flare is purchased by USAF and the Navy. Unit prices are estimates from industry.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 16	P-1 Line Item Number / Title: 356010 / Flares	Aggregated Items Title: (LA68) MJU-68/B IR CM FLARE
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
(LA68) MJU-68 IR CM FLARE	A		-	-	-	0.004	3,547	14.190	0.003	6,667	20.000	0.003	6,000	18.000	-	-	-	0.003	6,000	18.000
Subtotal: Uncategorized			-	-	-	-	-	14.190	-	-	20.000	-	-	18.000	-	-	-	-	-	18.000
Total			-	-	-	-	-	14.190	-	-	20.000	-	-	18.000	-	-	-	-	-	18.000

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
The MJU-68 Infrared Countermeasure Flare is purchased by the Navy. Unit prices are estimates from industry.

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 16 **P-1 Line Item Number / Title:** 356010 / Flares **Aggregated Items Title:** (LY12) ALA-17 FLARE CARTRIDGE

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
(LY17) ALA-17 Flare Cartridge	A		-	-	-	0.001	16,548	10.150	0.001	7,862	5.000	-	-	-	-	-	-	-	-	
Subtotal: Uncategorized			-	-	-	-	-	10.150	-	-	5.000	-	-	-	-	-	-	-	-	
Total			-	-	-	-	-	10.150	-	-	5.000	-	-	-	-	-	-	-	-	

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 18: Fuzes **P-1 Line Item Number / Title:** 356120 / Fuzes

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	239.252	71.062	109.358	81.000	190.358	166.722	213.692	247.553	252.009	-	1,380.648
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	239.252	71.062	109.358	81.000	190.358	166.722	213.692	247.553	252.009	-	1,380.648
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	239.252	71.062	109.358	81.000	190.358	166.722	213.692	247.553	252.009	-	1,380.648

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

CY funding includes \$47M requested for Overseas Contingency Operations.

The following Weapon System Cost Elements are represented in this P-1 line:

- FMU-152A/B Joint Programmable Fuze (JPF) (EC11) is a multi-function unitary fuze developed and procured for the Joint Direct Attack Munition and other conventional inventory weapons. The FMU-152A/B provides a highly reliable bomb fuze with multiple arm times, instantaneous and multiple short and long delay detonation times, hard target survivability, cockpit programmability, and increased service/shelf life. The JPF is compatible with MK-80 series guided and unguided bombs. It has replaced and/or supplemented the FMU-139A/B and FMU-139C/B, FMU-143, FMU-124, and M904/M905 fuzes, and provides fuzing capability for hard target, general purpose, and guided bombs. This item is procured through the Air Force Lifecycle Management Center (AFLCMC), Eglin AFB, Florida. The Air Force is the lead service for procurement.

-The FMU-139D/B is a Navy led general purpose fuze Engineering Change Proposal (ECP) program to replace the FMU-139C/B and FMU-152A/B in the Navy and Air Force inventories, respectively. It is a low cost option that met both service requirements for a better buying power business case. The USAF will evaluate its penetration characteristics in FY19. The contract for this effort was competitively awarded by the Navy, 17 SEP 15. The ECP is being qualified and tested with an AF production buy decision in 3QFY18 and production deliveries beginning in 3QFY19 and beyond.

- DSU-33D/B Proximity Sensor (KY70) is a battery operated, RF, Doppler radar proximity sensor. It is used to provide low altitude proximity function to the bomb fuze. The sensor interfaces with FMU-139 and FMU-152 fuzes. This line item includes existing sensor production, Engineering Change Proposals (ECPs), and product improvement efforts, for example, modifications to eliminate obsolescence. DSU-33D/B will be replaced by C-HOBS. This item will be procured through the Army SMCA.

- Cockpit-selectable Height of Burst Sensor (C-HOBS) - C-HOBS is a radar proximity sensor that provides high precision variable proximity function to the fuze system. The sensor will provide manual and cockpit selectable heights of burst, precision height sensing, and possible terrain discrimination. The sensor will interface with various weapons systems. This program will be competitively awarded in FY18 with production starting in FY20.

- Hard Target Void Sensing Fuze (HTVSF) (EE27), FMU-167 is an advanced system designed to provide fuzing and void sensing functions, enabling a weapon to penetrate and destroy hardened, deeply buried targets protected by multiple layers of soil and/or reinforced concrete. The HTVSF provides for in-flight cockpit programmability, safing and arming, multi-function (time delay and void sensing) and multi-delay arming capabilities. The United States Air Force (USAF) and Department of the Navy (DON) will employ HTVSF in penetrator warheads, contributing to the ability to strike and functionally defeat high value/high

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 18: Fuzes		P-1 Line Item Number / Title: 356120 / Fuzes
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>payoff targets in order to achieve strategic and operational objectives. HTVSF completed MS-C in May FY15 & Low-Rate Initial Production (LRIP) was awarded in July 2015. LRIP II was awarded in Sept 2016 and Full Rate Production was awarded in Sept 2017. This item is procured through the Air Force Life Cycle Management Center (AFLCMC) Eglin AFB, Florida.</p> <p>- Items Less Than Five Million Dollars: Various fuzes, to include inert training items, that have an annual procurement value of less than \$5,000,000 and are code A.</p> <p>In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), these items are necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.</p> <p>PEs associated with this P-1 Line are 0208030F and 0207599F.</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 01: Ammunition / BSA 18: Fuzes **P-1 Line Item Number / Title:** 356120 / Fuzes

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	(ED29) FMU-143S/B 60 MIL SEC FUZE	P-5a	A		- / -	- / 10.000	- / -	- / -	- / -	- / -
P-40a	(ED51) FMU-152 FUZE SYSTEM, UNIVERSAL				- / -	- / 148.144	- / 46.860	- / -	- / 37.000	- / 37.000
P-5	(KY70) DSU-33D/B PROX SENSOR	P-5a	A		- / -	- / 13.363	- / 14.062	- / -	- / -	- / -
P-5	FMU-139D/B	P-5a	A		- / -	1 / 14.439	2,409 / 10.000	23,414 / 77.454	- / -	23,414 / 77.454
P-5	(EE27) FMU-167 HTVSF	P-5a	A		- / -	- / 53.306	- / 0.140	- / 31.904	- / 44.000	- / 75.904
P-40	Total Gross/Weapon System Cost				- / -	- / 239.252	- / 71.062	- / 109.358	- / 81.000	- / 190.358

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 The Air Force procures munitions to maintain appropriate quantities in the War Reserve Materiel (WRM) Munitions and test and training stockpiles. Active, Guard and Reserve components draw from the WRM stockpiles as required and receive test and training allocations annually based on current-year requirements.

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 18	P-1 Line Item Number / Title: 356120 / Fuzes	Item Number / Title [DODIC]: (ED29) FMU-143S/B 60 MIL SEC FUZE

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	10.000	-	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	10.000	-	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	10.000	-	-	-	-

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Hardware End Item Cost																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK (LAP) ^(†)	-	-	-	0.006	1,512	8.529	-	-	-	-	-	-	-	-	-	-	-	-
PA60 CONTAINER	-	-	-	0.000	1,549	0.049	-	-	-	-	-	-	-	-	-	-	-	-
PBXN-11	-	-	-	0.000	513	0.021	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	8.599	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - Hardware End Item Cost</i>	-	-	-	-	-	8.599	-	-	-	-	-	-	-	-	-	-	-	-
Support - Support End Item Cost																		
QUALITY ASSURANCE	-	-	-	-	-	0.006	-	-	-	-	-	-	-	-	-	-	-	-
FIRST ARTICLE TEST	-	-	-	-	-	1.350	-	-	-	-	-	-	-	-	-	-	-	-
PRODUCTION ENGINEERING	-	-	-	-	-	0.045	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	1.401	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	-	-	-	10.000	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

Prices are provided by the Single Manager for Conventional Ammunition (SMCA), Department of the Army. Prices shown represent the SMCA efforts to obtain hardware, containers, pallets, straps, explosive material, etc. for the DoD Military Services purchasing the same or similar items, and to load, assemble and pack the Air Force order. Cost drivers may include economic price adjustments, currency rate fluctuations, price of complex or scarce materials and orders from other Military Services (increases/decreases).

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 18	P-1 Line Item Number / Title: 356120 / Fuzes	Item Number / Title [DODIC]: (ED29) FMU-143S/B 60 MIL SEC FUZE
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	
Load, Assemble and Pack (LAP) costs are applicable to production, build-up and packaging the individual round. The LAP quantity is the number of completed fuzes to be delivered into the AF inventory.		
(†) indicates the presence of a P-5a		

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 18	P-1 Line Item Number / Title: 356120 / Fuzes	Item Number / Title [DODIC]: (ED29) FMU-143S/B 60 MIL SEC FUZE
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP)		2017	MCALESTER ARMY AMMUNITION PLANT / MCALESTER, OK	MIPR	AFLCMC Hill AFB	Mar 2017	Jan 2018	1,512	0.006	Y		Jan 2017

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force														Date: February 2018					
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 18							P-1 Line Item Number / Title: 356120 / Fuzes							Aggregated Items Title: (ED51) FMU-152 FUZE SYSTEM, UNIVERSAL					

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
FMU-152 FUZE SYSTEM UNIVERSAL	A		-	-	-	0.003	49,381	148.144	0.004	11,715	46.860	-	-	-	0.004	10,000	37.000	0.004	10,000	37.000
Subtotal: Uncategorized			-	-	-	-	-	148.144	-	-	46.860	-	-	-	-	-	37.000	-	-	37.000
Total			-	-	-	-	-	148.144	-	-	46.860	-	-	-	-	-	37.000	-	-	37.000

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
 - FMU-152A/B Joint Programmable Fuze (JPF) (EC11): A multi-function unitary fuze developed and procured for the Joint Direct Attack Munition and other conventional inventory weapons. The FMU-152A/B provides a highly reliable bomb fuze with multiple arm times, instantaneous and multiple short and long delay detonation times, hard target survivability, cockpit programmability, and increased service/shelf life. It has replaced and/or supplemented the FMU-139A/B and FMU-139C/B, FMU-143, and M904/M905 fuzes, and provides the next generation of fuzing capability for hard target, general purpose, and guided bombs. This item is procured through AFLCMC/EB Armament Directorate, Eglin AFB, Florida. The Air Force is the lead service for procurement.

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 18	P-1 Line Item Number / Title: 356120 / Fuzes	Item Number / Title [DODIC]: (KY70) DSU-33D/B PROX SENSOR

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	13.363	14.062	-	-	-
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	13.363	14.062	-	-	-
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	13.363	14.062	-	-	-

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost <i>(\$ M)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	Unit Cost <i>(\$ M)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	Unit Cost <i>(\$ M)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	Unit Cost <i>(\$ M)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	Unit Cost <i>(\$ M)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	Unit Cost <i>(\$ M)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>
Hardware - (KY70) DSU-33D/B PROX SENSOR Cost																		
Recurring Cost																		
DSU-33D/B PROX FUZE ^(†)	-	-	-	0.003	4,607	13.363	0.005	2,812	14.062	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	13.363	-	-	14.062	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - (KY70) DSU-33D/B PROX SENSOR Cost</i>	-	-	-	-	-	13.363	-	-	14.062	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	-	-	-	13.363	-	-	14.062	-	-	-	-	-	-	-	-	-

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 18	P-1 Line Item Number / Title: 356120 / Fuzes	Item Number / Title [DODIC]: (KY70) DSU-33D/B PROX SENSOR
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
DSU-33D/B PROX FUZE		2017	ATK TACTICAL SYSTEMS CO. / Rocket Center, WV	MIPR	ACC-ROCK ISLAND	Apr 2017	Apr 2018	4,607	0.003	Y		
DSU-33D/B PROX FUZE		2018	ATK TACTICAL SYSTEMS CO. / Rocket Center, WV	MIPR	ACC-ROCK ISLAND	Apr 2018	Apr 2019	2,812	0.005	Y		

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 18	P-1 Line Item Number / Title: 356120 / Fuzes	Item Number / Title [DODIC]: FMU-139D/B

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	-	1	2,409	23,414	-	23,414
Gross/Weapon System Cost (\$ in Millions)	-	14.439	10.000	77.454	-	77.454
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	14.439	10.000	77.454	-	77.454
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	14.439	10.000	77.454	-	77.454

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	-	14.439	0.004	0.003	-	0.003

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Hardware End Item Cost Cost																		
Recurring Cost																		
FMU-139 D/B Fuzes ^(†)	-	-	-	-	-	8.586	0.003	2,409	7.227	0.003	23,414	70.241	-	-	-	0.003	23,414	70.241
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	8.586	-	-	7.227	-	-	70.241	-	-	-	-	-	70.241
<i>Subtotal: Hardware - Hardware End Item Cost Cost</i>	-	-	-	-	-	8.586	-	-	7.227	-	-	70.241	-	-	-	-	-	70.241
Support - FMU-139D/B, PGM SPT, Qual Test Cost																		
Program Management Administration	-	-	-	-	-	0.564	-	-	0.452	-	-	1.140	-	-	-	-	-	1.140
Technical Support	-	-	-	-	-	0.900	-	-	0.928	-	-	2.500	-	-	-	-	-	2.500
Testing	-	-	-	-	-	4.389	-	-	1.393	-	-	3.573	-	-	-	-	-	3.573
<i>Subtotal: Support - FMU-139D/B, PGM SPT, Qual Test Cost</i>	-	-	-	-	-	5.853	-	-	2.773	-	-	7.213	-	-	-	-	-	7.213
Gross/Weapon System Cost	-	-	-	14.439	1	14.439	0.004	2,409	10.000	0.003	23,414	77.454	-	-	-	0.003	23,414	77.454

^(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 18	P-1 Line Item Number / Title: 356120 / Fuzes	Item Number / Title [DODIC]: FMU-139D/B
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
FMU-139 D/B Fuzes		2018	Orbital ATK / Rocket Center, WV	C / FFP	AFLCMC/EB - Weapons	Jun 2018	Jun 2018	2,409	0.003	Y		
FMU-139 D/B Fuzes		2019	Orbital ATK / Rocket Center, WV	C / FFP	AFLCMC/EB - Weapons	Sep 2019	Sep 2019	23,414	0.003	Y		

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Exhibit P-5, Cost Analysis: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 18	P-1 Line Item Number / Title: 356120 / Fuzes	Item Number / Title [DODIC]: (EE27) FMU-167 HTVSF
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ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	53.306	0.140	31.904	44.000	75.904
Less PY Advance Procurement (\$ in Millions)	-	-	0.000	0.000	-	0.000
Net Procurement (P-1) (\$ in Millions)	-	53.306	0.140	31.904	44.000	75.904
Plus CY Advance Procurement (\$ in Millions)	-	0.000	0.000	0.000	-	0.000
Total Obligation Authority (\$ in Millions)	-	53.306	0.140	31.904	44.000	75.904

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	0.000	0.000	0.000	0.000	0.000
Gross/Weapon System Unit Cost (\$ in Millions)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - Hardware End Item Cost																		
Recurring Cost																		
Hard Target Void Sensing Fuze CLIN 1001 ^(†)	-	-	-	0.015	3,313	49.699	-	-	-	0.018	1,681	30.250	0.018	2,444	44.000	0.018	4,125	74.250
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	49.699	-	-	-	-	-	30.250	-	-	44.000	-	-	74.250
<i>Subtotal: Hardware - Hardware End Item Cost</i>	-	-	-	-	-	49.699	-	-	-	-	-	30.250	-	-	44.000	-	-	74.250
Support - Support End Item Cost																		
Program Management Administration	-	-	-	-	-	1.058	-	-	0.140	-	-	1.654	-	-	-	-	-	1.654
Testing	-	-	-	-	-	1.600	-	-	-	-	-	-	-	-	-	-	-	-
Life Cycle Surveillance Test	-	-	-	-	-	0.949	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Support End Item Cost</i>	-	-	-	-	-	3.607	-	-	0.140	-	-	1.654	-	-	-	-	-	1.654
Gross/Weapon System Cost	-	-	-	-	-	53.306	-	-	0.140	-	-	31.904	-	-	44.000	-	-	75.904

^(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 01 / 18	P-1 Line Item Number / Title: 356120 / Fuzes	Item Number / Title [DODIC]: (EE27) FMU-167 HTVSF
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Hard Target Void Sensing Fuze CLIN 1001		2019	Orbital ATK / Rocket Center, WV	C / FFP	AFLCMC/EB - Weapons	Dec 2018	Jun 2019	1,681	0.018	Y		
Hard Target Void Sensing Fuze CLIN 1001	✓	2019	Orbital ATK / Rocket Center, WV	C / FFP	AFLCMC/EB - Weapons	Sep 2019	Mar 2020	2,444	0.018	Y		

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 02: Weapons / BSA 1: Small Arms	P-1 Line Item Number / Title: 357010 / Small Arms
---	---

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--	---	--

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	175.549	37.459	28.611	64.502	8.500	73.002	32.106	26.800	33.389	28.043	-	434.959
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	175.549	37.459	28.611	64.502	8.500	73.002	32.106	26.800	33.389	28.043	-	434.959
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	175.549	37.459	28.611	64.502	8.500	73.002	32.106	26.800	33.389	28.043	-	434.959

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Small Arms encompasses small caliber, hand fired weapons (pistols and rifles) used to support air base ground defense, aircrew protection, Office of Special Investigations, security functions, and other activities requiring small, portable firearms. This line also procures various accessories needed to improve or maintain existing weapons.

The M4 Carbine is a 5.56mm, gas-operated, air-cooled, magazine-fed, selective-rate, shoulder-fired weapon. It is fed by a 30-round magazine and has continued to replace select M16 series rifles. It provides the individual Airman operating in close quarters the capability to engage targets at extended ranges with accurate lethal fire. More compact than the M16 series rifle and featuring a collapsible stock, it achieves over 85% commonality with the M16A2 Rifle. The M4 carbine also includes a Combat Optic and the Modular Weapon System (MWS) which provides two additional magazines, the M4 Rail Assembly System and the Back-up Iron Sight.

The Modular Handgun System(MHS) is a DoD, non-developmental, COTS, full & open competition for a new DoD handgun to replace all M9s, M11s and Glock-19s in the inventory. The M17 and M18 are 9mm, lightweight, striker-fired semi-automatic pistols. The M17 will be the full size version and the M18 will be the compact version. The USAF has yet to determine if the configuration for the new General Officer Personal Defense Weapon will be the M17 or the M18.

PEs associated with this P-1 line are 0207227F, 0207580F, 0408011F and 0804731F.

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Exhibit P-40, Budget Line Item Justification: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F: Procurement of Ammunition, Air Force / BA 02: Weapons / BSA 1: Small Arms **P-1 Line Item Number / Title:** 357010 / Small Arms

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	M320A1 (40MM GRENADE LAUNCHER)				- / -	- / 30.800	- / -	- / 33.606	- / -	- / 33.606
P-5	M4 Carbine (5.56mm)	P-5a, P-21	A		- / 175.549	- / 3.153	- / -	- / 17.100	- / 8.500	- / 25.600
P-40a	Modular Handgun System (MHS)				- / -	- / -	- / 16.000	- / 9.000	- / -	- / 9.000
P-40a	SMALL ARMS Items Less Than \$5M				- / -	- / 3.506	- / 12.611	- / 4.796	- / -	- / 4.796
P-40	Total Gross/Weapon System Cost				- / 175.549	- / 37.459	- / 28.611	- / 64.502	- / 8.500	- / 73.002

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY2019 funding in the amount of \$31.790M procures Modular Handgun System (MHS), AN/PEQ-15 Laser Designators, M2A1 Machine Guns, M240B Machine Guns, M249 Automatic Rifle, M4A1 Carbine, Modular Combat Shotgun, weapon modification projects, First Destination Transportation costs, and PMA dollars to support small arms installation and unit mission requirements for all Air Force Personnel.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 02 / 1 **P-1 Line Item Number / Title:** 357010 / Small Arms **Aggregated Items Title:** M320A1 (40MM GRENADE LAUNCHER)

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Uncategorized																				
M320A1 (40MM GRENADE LAUNCHER) ⁽¹⁾	A		-	-	-	0.006	5,500	30.800	-	-	-	0.006	6,001	33.606	-	-	-	0.006	6,001	33.606
Subtotal: Uncategorized			-	-	-	-	-	30.800	-	-	-	-	-	33.606	-	-	-	-	-	33.606
Total			-	-	-	-	-	30.800	-	-	-	-	-	33.606	-	-	-	-	-	33.606

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
Unit costs for FY18 are estimates and are subject to change.

Footnotes:
⁽¹⁾ FY16 dollars are for Government Furnished Material (GFM).

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Exhibit P-5, Cost Analysis: PB 2019 Air Force		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 3011F / 02 / 1	P-1 Line Item Number / Title: 357010 / Small Arms	Item Number / Title [DODIC]: M4 Carbine (5.56mm)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	175.549	3.153	-	17.100	8.500	25.600
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	175.549	3.153	-	17.100	8.500	25.600
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	175.549	3.153	-	17.100	8.500	25.600

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Support - Support End Item Cost																		
M4A1 CARBINE (5.56mm) ^(t)	0.004	43,010	175.549	0.001	2,810	3.153	-	-	-	0.001	24,429	17.100	0.001	12,143	8.500	0.001	36,572	25.600
<i>Subtotal: Support - Support End Item Cost</i>	-	-	175.549	-	-	3.153	-	-	-	-	-	17.100	-	-	8.500	-	-	25.600
Gross/Weapon System Cost	-	-	175.549	-	-	3.153	-	-	-	-	-	17.100	-	-	8.500	-	-	25.600

^(t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 02 / 1	P-1 Line Item Number / Title: 357010 / Small Arms	Item Number / Title [DODIC]: M4 Carbine (5.56mm)
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
M4A1 CARBINE (5.56mm) ^(†)		2014	FN MANUFACTURING / COLUMBIA, SC	MIPR	ARMY/ACC	Oct 2014	May 2018	4,597	0.001	Y		Oct 2014
M4A1 CARBINE (5.56mm) ^(†)		2015	FN MANUFACTURING / COLUMBIA, SC	MIPR	ARMY/ACC	Oct 2015	Apr 2019	686	0.001	Y		Oct 2015
M4A1 CARBINE (5.56mm) ^(†)		2016 ⁽²⁾	FN MANUFACTURING / COLIMBIA, SC	MIPR	ARMY/ACC	Aug 2016	Nov 2016	35,020	0.001	Y		Aug 2016
M4A1 CARBINE (5.56mm) ^(†)		2016	COLT DEFENSE LLC / WEST HARTFORD, CT	MIPR	ARMY/ACC	Aug 2016	Dec 2017	2,707	0.001	Y		Aug 2016
M4A1 CARBINE (5.56mm)		2017	TBD / TBD	MIPR	ARMY/ACC	Jan 2017	Jan 2021	2,810	0.001	Y		
M4A1 CARBINE (5.56mm)		2019	TBD / TBD	MIPR	ARMY/ACC	Jan 2019	Jan 2021	24,429	0.001	Y		
M4A1 CARBINE (5.56mm)	✓	2019	TBD / TBD	MIPR	ARMY/ACC	Jan 2019	Jan 2021	12,143	0.001	Y		

^(†) indicates the presence of a P-21

Footnotes:

⁽²⁾ Army is the PICA for this item; therefore, the Air Force requirements are ordered against contracts awarded by the Army. Due to a contractor protest, the Army awarded to 2 contractors ILO a single contractor. The Air Force requirements will be awarded to either FN Manufacturing, Columbia, SC or to Colt, Hartford, CT for FY16-FY18.

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 02 / 1	P-1 Line Item Number / Title: 357010 / Small Arms	Item Number / Title [DODIC]: M4 Carbine (5.56mm)
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Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2015												Fiscal Year 2016												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	Calendar Year 2015												Calendar Year 2016												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
M4A1 CARBINE (5.56mm)																															
	1	2014	AF	4.597	.000	4.597	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.597		
	1	2015	AF	.686	.000	.686												A	-	-	-	-	-	-	-	-	-	-	.686		
	2	2016	AF	35.020	.000	35.020																						A	-	35.020	
	3	2016	AF	2.707	.000	2.707																						A	-	2.707	

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 02 / 1	P-1 Line Item Number / Title: 357010 / Small Arms	Item Number / Title [DODIC]: M4 Carbine (5.56mm)
---	---	--

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2017													Fiscal Year 2018										BALANCE			
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017													Calendar Year 2018												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L		A U G	S E P	
M4A1 CARBINE (5.56mm)																																
	1	2014	AF	4.597	.000	4.597	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.271	2.000	2.000	.326	.000
	1	2015	AF	.686	.000	.686	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.686	
	2	2016	AF	35.020	.000	35.020	-	2.000	2.000	2.000	2.000	2.000	2.000	2.000	4.000	4.000	4.000	4.000	4.000	1.020										.000		
	3	2016	AF	2.707	.000	2.707	-	-	-	-	-	-	-	-	-	-	-	-	-	2.000	.707									.000		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		

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Exhibit P-21, Production Schedule: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 02 / 1	P-1 Line Item Number / Title: 357010 / Small Arms	Item Number / Title [DODIC]: M4 Carbine (5.56mm)
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Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2019												Fiscal Year 2020												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019												Calendar Year 2020												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
M4A1 CARBINE (5.56mm)																															
	1	2014	AF	4.597	4.597	.000																						.000			
	1	2015	AF	.686	.000	.686	-	-	-	-	-	-	.686															.000			
	2	2016	AF	35.020	35.020	.000																						.000			
	3	2016	AF	2.707	2.707	.000																						.000			

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Exhibit P-21, Production Schedule: PB 2019 Air Force	Date: February 2018
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Appropriation / Budget Activity / Budget Sub Activity: 3011F / 02 / 1	P-1 Line Item Number / Title: 357010 / Small Arms	Item Number / Title [DODIC]: M4 Carbine (5.56mm)
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)								
		MSR For 2019	1-8-5 For 2019	MAX For 2019	Initial				Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	
1	FN MANUFACTURING - COLUMBIA, SC				0	0	0	0	0	0	0	0	0
2	FN MANUFACTURING - COLIMBIA, SC				0	0	0	0	0	0	0	0	0
3	COLT DEFENSE LLC - WEST HARTFORD, CT				0	0	0	0	0	0	0	0	0

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 02 / 1 **P-1 Line Item Number / Title:** 357010 / Small Arms **Aggregated Items Title:** Modular Handgun System (MHS)

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Modular Handgun System																				
M17	A		-	-	-	-	-	-	0.000	70,850	14.170	-	-	-	-	-	-	-	-	-
M18	A		-	-	-	-	-	-	0.000	9,000	1.800	0.000	45,000	9.000	-	-	-	0.000	45,000	9.000
General Officer's Handgun	A		-	-	-	-	-	-	0.000	150	0.030	-	-	-	-	-	-	-	-	-
Subtotal: Modular Handgun System			-	-	-	-	-	-	-	-	16.000	-	-	9.000	-	-	-	-	-	9.000
Total			-	-	-	-	-	-	-	-	16.000	-	-	9.000	-	-	-	-	-	9.000

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
The MHS is a DoD, non-developmental, COTS, full & open competition for a new DoD handgun to replace all M9s, M11s and Glock-19s in the inventory.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Air Force **Date:** February 2018

Appropriation / Budget Activity / Budget Sub Activity: 3011F / 02 / 1 **P-1 Line Item Number / Title:** 357010 / Small Arms **Aggregated Items Title:** SMALL ARMS Items Less Than \$5M

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
SMALL ARMS ITEMS LESS THAN \$5 MILLION																				
AN/PEQ-15 Laser Designator	A		-	-	-	0.001	265	0.246	0.001	100	0.090	0.001	100	0.090	-	-	-	0.001	100	0.090
M2A1 (.50 Cal Machine Gun)	A		-	-	-	0.014	20	0.280	0.014	10	0.140	0.014	10	0.140	-	-	-	0.014	10	0.140
M240B Machinegun (7.62mm)	A		-	-	-	0.008	25	0.203	0.008	25	0.203	0.005	15	0.073	-	-	-	0.005	15	0.073
Ballistic Sighting Module	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M249 Automatic Rifle (5.56mm)	A		-	-	-	-	-	-	0.004	25	0.095	0.004	25	0.095	-	-	-	0.004	25	0.095
M4A1 Carbine (5.56mm - Auto)	A		-	-	-	0.001	25	0.017	0.001	25	0.017	0.001	25	0.017	-	-	-	0.001	25	0.017
Modular Combat Shotgun (12 Ga)	A		-	-	-	0.001	50	0.041	0.001	25	0.021	0.001	25	0.021	-	-	-	0.001	25	0.021
M9 Pistol (9mm)	A		-	-	-	0.001	500	0.340	-	-	-	-	-	-	-	-	-	-	-	-
Glock 19	A		-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M134 Mini Gun	A		-	-	-	-	-	-	0.050	160	8.000	-	-	-	-	-	-	-	-	-
MOD PROJECTS PARTS PROCUREMENT	A		-	-	-	-	-	0.350	-	-	0.250	-	-	0.250	-	-	-	-	-	0.250
FIRST DESTINATION TRANSPORTATION	A		-	-	-	-	-	1.200	-	-	1.836	-	-	2.000	-	-	-	-	-	2.000
PMA- OTHER GOVERNMENT COST	A		-	-	-	-	-	0.080	-	-	-	-	-	-	-	-	-	-	-	-
PMA- CONTRACTOR SERVICES	A		-	-	-	-	-	0.750	-	-	1.364	-	-	1.200	-	-	-	-	-	1.200
PMA-GPC	A		-	-	-	-	-	-	-	-	0.080	-	-	0.080	-	-	-	-	-	0.080
PMA-TRAVEL	A		-	-	-	-	-	-	-	-	0.080	-	-	0.080	-	-	-	-	-	0.080
PMA-RMIS CORPORATE TAX	A		-	-	-	-	-	-	-	-	0.150	-	-	0.150	-	-	-	-	-	0.150
Hold for Price Adjustments	A		-	-	-	-	-	-	-	-	0.285	-	-	0.600	-	-	-	-	-	0.600
Subtotal: SMALL ARMS ITEMS LESS THAN \$5 MILLION			-	-	-	-	-	3.506	-	-	12.611	-	-	4.796	-	-	-	-	-	4.796
Total			-	-	-	-	-	3.506	-	-	12.611	-	-	4.796	-	-	-	-	-	4.796

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
Unit costs for FY18 are estimates and subject to change.

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